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February 14, 1972

RAILWAY AGE

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John A. Volpe

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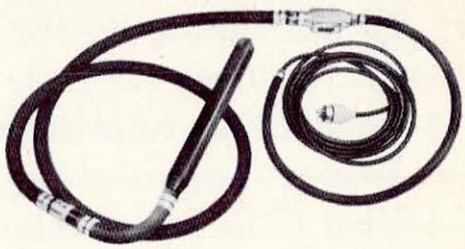

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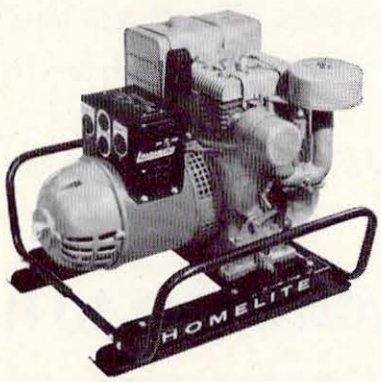

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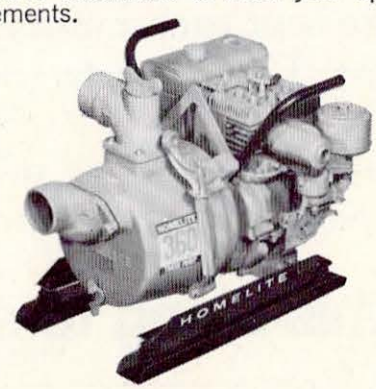

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RAILWAY AGE

February 14, 1972 Vol. 172 No. .

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Railway Age, established in 1856, is indexed by the Business Periodicals Index and the Engineering Index Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.
Published semi-monthly by the Simmons-Boardman Publishing Corporation, 508 Birch St., Bristol, Conn. 06010.
Railroad employees' subscription rate, U.S. possessions, Canada and Mexico, $6 one year, $9 two years, all others $15 for one year, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year; in the eastern hemisphere, $15 a year. Single copies 60¢, except special issues.
Address all subscriptions, change of address and correspondence concerning them to Subscription Dept., Railway Age, P.O. Box 530, Bristol, Conn. 06010.
Change of address should reach us three weeks in advance of next issue date. Send old address with new enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Member of ABC RPI

Circulation Dept.: John Rogers Director of Circulation, 350 Broadway, New York, N.Y. 10013. POSTMASTER—SEND FORM 3579 TO P.O. BOX 530, BRISTOL, CONN. 06010.

Printed at the Hughes Printing Co., 34 North Crystal St., East Stroudsburg, Pa. 18301. Second-class postage paid at Bristol, Conn., and at additional mailing offices.

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Inside

LUTHER MILLER

JOHN VOLPE: HELLO AGAIN

John Volpe had been in office scarcely two months when the New York Post complained that he was acting not so much like a secretary of all transportation as "a frustrated driver stalled in traffic. . .blasting his horn" at critics of the urban freeway program. Our own editorial on Mr. Volpe, published at about the same time, was a little friendlier, but not much. We wondered why the secretary had had so much to say about highways and airways and so little about railways, and we begged, "Say something, Mr. Volpe—even if it's just 'Hello.' "

Mr. Volpe said more than hello. In a taped interview he demonstrated a profound understanding of rail and mass transit problems and he pledged to try to come to grips with them.

In the ensuing three years, he has tried to carry out that pledge—and with a remarkable degree of success considering the battles (public and private) he has had to fight at every bend.

Mr. Volpe skillfully piloted a mass-transit bill through Congress. He helped bring Amtrak into being. His Department produced railroad-aid proposals which may one day be viewed as landmarks (if they ever get through Congress).

On the occasion of his third anniversary in office, Railway Age again put questions to Mr. Volpe (p. 14). He spoke candidly of his disappointment that he had not been able to accomplish more for railroads. His conviction that much *will* be accomplished in the coming critical months—and that the answer for railroads need not be takeover—came through with equal force.

Our own conviction is that if the President and the Congress work half as hard toward creating a balanced transportation system as Secretary Volpe, then all of the modes will be home—free.

RAIL TRANSIT vs THE OTHER KIND

The Urban Mass Transportation Act of 1970 was, we thought at the time, a shining star in DOT's crown. But in execution it has acquired some tarnish. For one thing, the Office of Management and Budget has been niggardly in parcelling out the money. (OMB gave the Urban Mass Transportation only $600 million of the $900 million which Congress wanted to spend on transit in Fiscal Year 1972.) For another, there has been a deeply troubling controversy within the DOT: strongly entrenched highway enthusiasts are determined to see to it that most of the money is poured into a concrete mixer.

With President Nixon's decision to budget $1 billion for transit in FY 1973, the first problem appears to be on its way to solution. The second is still with us as debate over the capital-grant criteria continues. Rail transit men feel that as originally drafted these criteria make it all but impossible to channel Federal money into anything but highways. For a late reading, Associate Editor Fred Houser interviewed UMTA Administrator Carlos Villarreal (p. 16).

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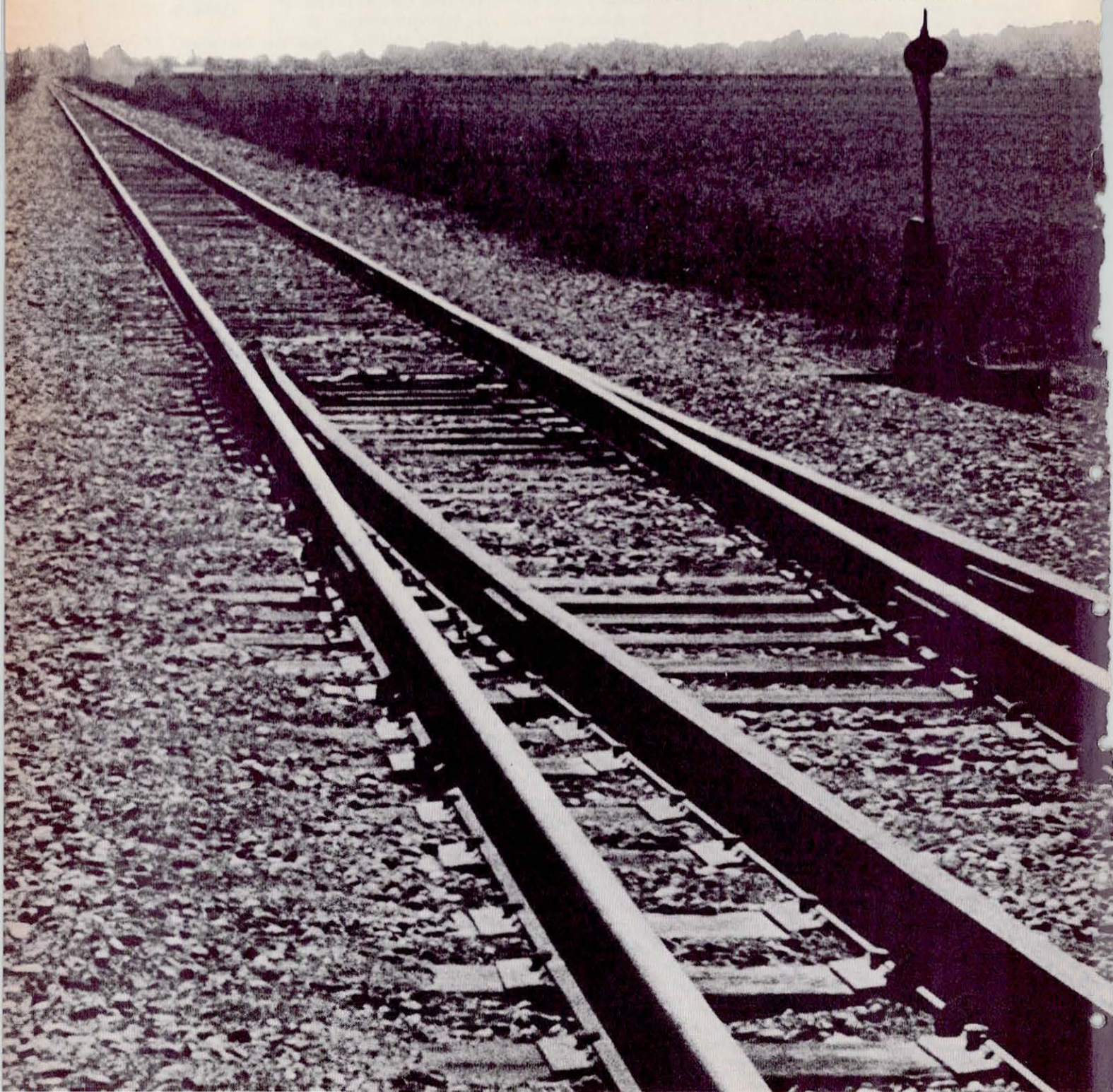


RAILWAY AGE

February 14, 1972

NEWS

MOVING PEOPLE	Mass-transport controversy is brewing in Chicago	p. 8
	R-44 sets a speed record	p. 8
	TurboTrain heads for the hills	p. 12
	Pullman drops commuter-car suit	p. 13
	Garrett, GE to build gas turbine/electric prototype rail cars	p. 19
WASHINGTON	ICC acts to speed abandonments	p. 8
	Emergency freight surcharge of 2.5% is approved	p. 8
FINANCIAL	U.S. transport bill nears the $2-billion mark	p. 8
	SP's big program, and what it means	p. 13
	Turnaround for the Milwaukee	p. 12
LOSS AND DAMAGE	How GM and the railroads halted a 10-year rise	p. 11
YARDS	Southern/CG open Savannah facility	p. 11
	BN picks Hauser, Idaho, for new yard	p. 12

FEATURES

JOHN VOLPE'S THREE YEARS AT DOT:	Disappointed that he has not been able to do more for railroads, the Secretary nonetheless is confident that solutions short of nationalization will be achieved	p. 14
MOVING PEOPLE	Coming: UMTA's first billion-dollar budget	p. 16
	Denver takes a cautious look at mass transit	p. 18
ENGINEERING	Weed control gets better and better	p. 20
	L&N trestle utilizes laminated stringers	p. 28
MOTIVE POWER	The story behind EMD's new line	p. 34
TAX CREDIT	Buyers wait for Congress to drop the other shoe	p. 40

COMMENT

INSIDE	John Volpe: Hello again	p. 5
LINES ON LABOR	It's startup time for modernizing work rules	p. 13
VIEWPOINT	Why not operating subsidies for transit?	p. 44
WATCHING WASHINGTON	New signaling standards may be on the way	p. 31

COVER

This issue's cover portrait of Transportation Secretary John A. Volpe was taken by a DOT photographer.

DEPARTMENTS

Advertising Sales Offices	p. 43	People in the News	p. 37
Carloadings	p. 39	Piggyback Loadings	p. 39
Market Outlook	p. 39	Supply Trade	p. 42
New Products	p. 35	Transit Personnel	p. 41

Short and Significant

ICC ACTS TO SPEED ABANDONMENTS

The ICC—in Ex Parte No. 274 (Sub-No. 1)—has introduced new procedures designed to speed up line abandonment proceedings. The new procedures involve use of one of three abandonment-application forms: (1) A new short form—which the Commission expects to be used in most future applications—may be used "if little or no public opposition is anticipated." The ICC will rule on this type of application without hearings unless protests are received indicating a demonstrable need for the line. (2) A modified long form is expected to cover most other applications. This form is to be accompanied by "a statistical indication" that fewer than 34 carloads per mile have been carried annually over the trackage. Unless there is "substantial evidence" to the contrary, the ICC will authorize the abandonment without further formal proceedings. (3) A long form of the old type will be continued for situations not covered by the two new forms.

EMERGENCY FREIGHT SURCHARGE APPROVED

Effective Feb. 5, railroads were permitted to impose a 2.5% emergency surcharge on all freight shipments, as requested in December. In approving the increase, the ICC noted that the carriers "have a critical need for additional revenue to offset recently incurred increased operating costs." The Commission stipulated that the surcharge must be removed no later than June 5.

SERVO MOVES TO ACQUIRE KARTRAK

Under an agreement in principle announced Jan. 25, the Servo Corp. will acquire the automatic car identification business of GTE Information Systems. The aci system, known as KarTrak, has been manufactured and marketed to railroads by an operating unit of GTE Information Systems. Under the agreement Servo will acquire all assets of the KarTrak business. Said Servo President Henry Blackstone: "We have an established record over the past 15 years in the railroad industry. With the acquisition of the KarTrak system, our commitment to maintain high product quality and service is increased."

MACHINE-TOOL ORDERS DROPPED 6% IN 1971

The U.S. machine tool industry, one of the basic business indicators, had total orders in 1971 of $861,550,000—6% less than the 1970 total, according to the National Machine Tool Builders' Association. Industry orders from domestic customers last year totaled $747,650,000, an increase of 2% over the comparable 1970 figure. Foreign orders totaled $113,900,000, compared with $179,200,000 in 1970.

R-44 SETS NEW YORK SPEED RECORD

An eight-car train of R-44s, built by St. Louis Car, sped over a six-mile stretch of the Long Island Rail Road Jan. 31 at 83 mph—a speed record for New York City subway equipment. The cars had previously passed a 30-day test on the subway system itself. The equipment is designed for 70-mph operating speeds. These speeds will be attainable on future NYCTA lines, but for the time being the new cars will be limited to 45-50 mph.

CONTROVERSY IS BREWING IN CHICAGO

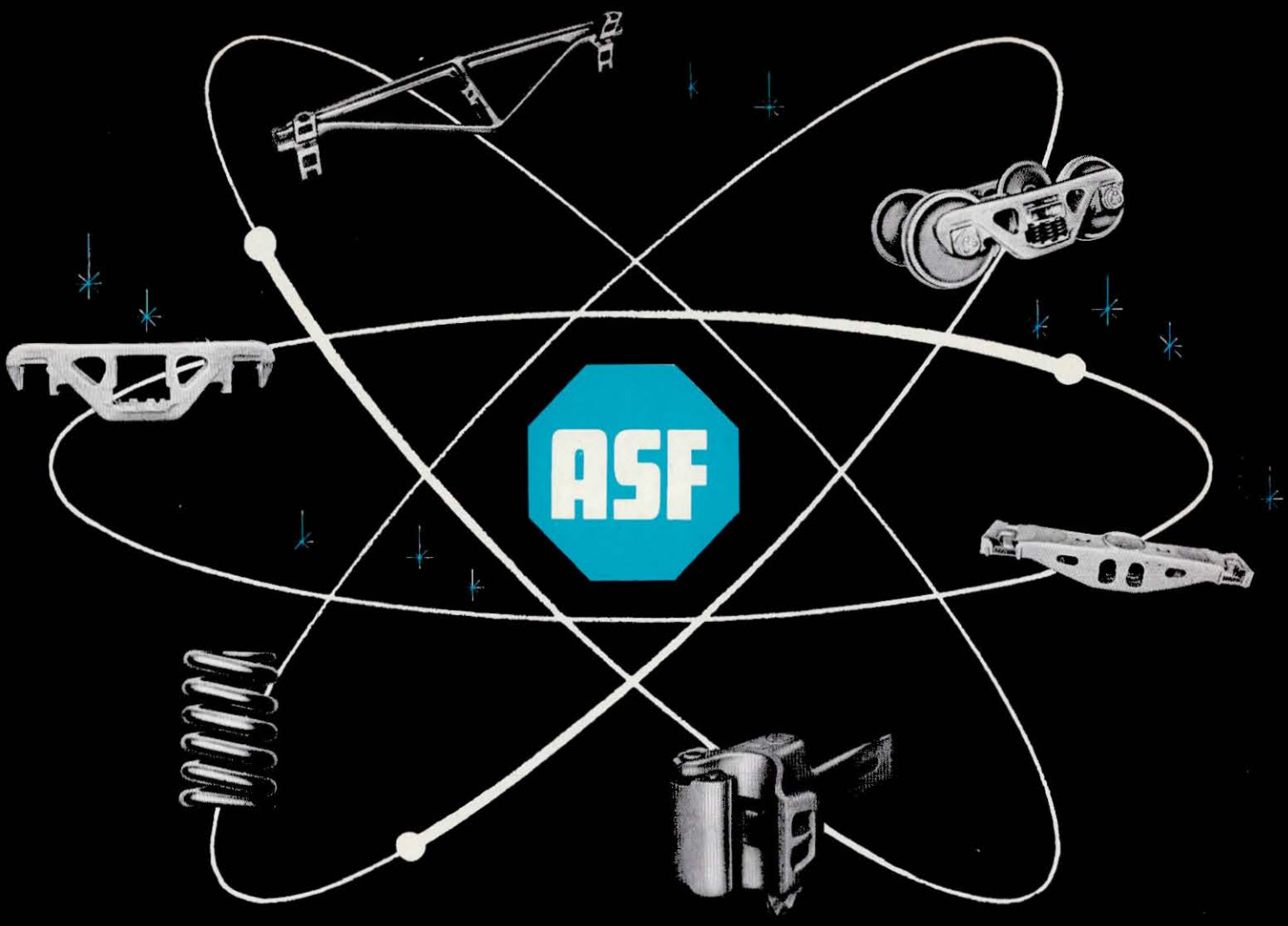
Not one but two hassles seem to be shaping up over Chicago's mass-transportation plans. In one, the city and the Chicago Transit Authority are paired against the Chicago & North Western in connection with a proposed $70-million extension of CTA rapid transit to O'Hare Field. C&NW says a 1967 agreement bars such expansion; the city and CTA think otherwise. The second potential controversy involves construction and financing of $750 million in downtown subway projects. The Illinois Supreme Court cleared the plan but it's now reported that the Cook County State's Attorney may take it to the U.S. Supreme Court.

IC/GM&O POSTPONED TWO MONTHS

Merger of the Illinois Central-Gulf, Mobile & Ohio, originally approved by the ICC for consummation Feb. 1, has been delayed for two months beyond that date. The ICC acted in response to petitions for reconsideration filed by Kansas City Southern, Missouri Pacific, and the North Western.

U.S. TRANSPORT BILL NUDGES $200 BILLION

U.S. transportation outlays totaled $197 billion in 1970, or 19.65% of the Gross National Product, reports the Transportation Association of America. The nation's freight bill came to $92.5 billion, of which $11.8 billion went to rails; $4.4 billion to intercity trucks regulated by the ICC; $6.1 billion to all water carriers; $1.2 billion to ICC-regulated oil pipelines; and $1.2 billion to domestic and international airlines. Of $104.9 billion spent for passenger transportation, $88.5 billion went for automobiles. Commercial domestic airlines got $6.6 billion, intercity bus $785 million and intercity rail $268 million. A total of $172 million went for rail commutation.



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Turning to a well known firm in the field of scientific testing, we challenged the MTS organization to create for us one of the most advanced fatigue test facilities in the United States. The result is a dynamic testing machine capable of applying loading which simulates train action to all of our product components.

Now that this equipment has been ordered, ASF eagerly looks forward to the fulfillment of its ambition to **positively** and **quickly** determine strength and endurance capabilities.

The machine's statistics are impressive. It can:

- Apply programmed dynamic loads up to 700,000 pounds force.
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We also pledge to share our findings with other manufacturers who are interested in similar problems.

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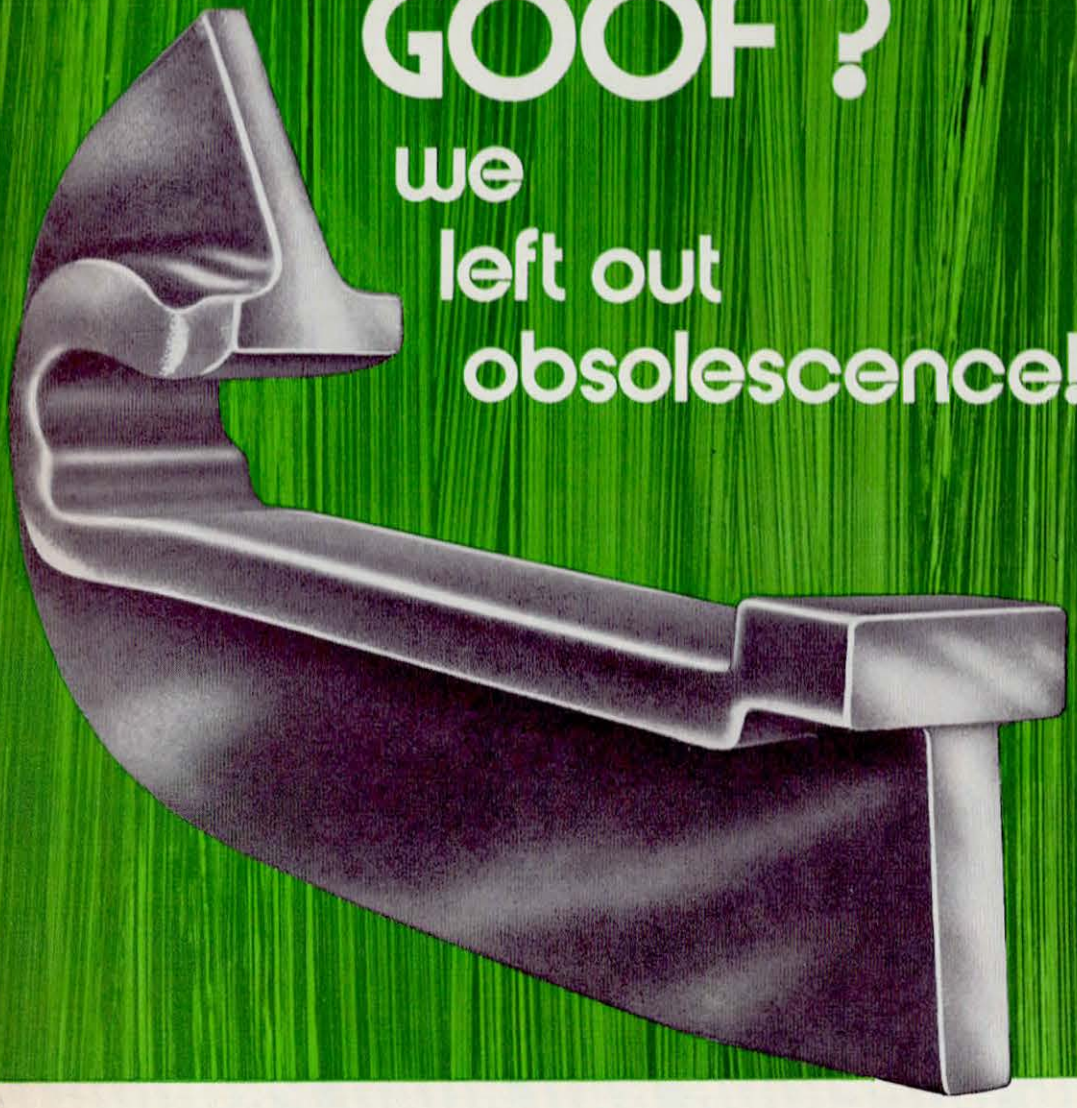

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Circle 6 on coupon page 35

RAILWAY AGE
NEWS

How GM and the railroads halted a 10-year rise in L&D

General Motors ships 40 billion pounds of freight a year by rail. Much of this moves in the form of new automotive vehicles, and therein lies a problem. "Of the nearly 3 million GM vehicles shipped by rail in the 12-month period ending in November of 1971, one out of every 10 resulted in a claim for theft, vandalism or damage," says GM President Edward N. Cole.

But thanks to customer/carrier teamwork, the problem is now on the way to solution, and a 10-year rise in damage has been halted, Cole told the Pittsburgh Traffic Club Jan. 27. He described a number of ways in which this has been accomplished:

(1) "On March 20, 1970, General Motors dispatched its first unit train from Chicago to Los Angeles, carrying cars and parts from 23 plants in Michigan. The first train of 35 railcars carried more than $1 million worth of new cars to their owners in California. It crossed the continent virtually non-stop in 62 hours, almost a full day faster than conventional freight. Today, we have four daily unit trains going from the Midwest—to San Francisco, Los Angeles, Atlanta, and Arlington, Texas—and another from Kansas City to Chicago."

The railroads, said Cole, schedule these trains through "the high damage, central-city areas late at night when opportunities for theft and vandalism are less." And there are added benefits: "While it is relatively easy to lose a railcar, it is relatively hard to lose a train." Transit time has been cut. For the railroads, car utilization is improved, yard congestion reduced—and damage claims slashed.

(2) "When General Motors developed the Chevrolet Vega, the car was specifically designed for a totally new concept in rail shipment suggested by a railroad. The Vegas are literally hung nose down in a special railcar, which has been called the Verti-Pak. . . .We have now shipped nearly 100,000 Vegas by Verti-Pak with excellent success. One hundred and eighty-three Verti-Pak railcars are now in use with 134 to be added during this year."

(3) "The success of the Verti-Pak has been so outstanding that we are currently testing and evaluating another type of containerization for larger cars. In this experiment, three vehicles are stacked in separate compartments one above the other in one large container, called a Stac-Pak, and automatically secured. Then four of these containers or 12 automobiles are loaded onto a railcar. . . .So far we have shipped 200 Cadillacs from Detroit to San Francisco with virtually no damage or loss of any kind. An additional 200 containers and 50 railcars are being built and will be in use within the next 60 days."

Said Cole: "Our ultimate objective is to have all automobiles that are shipped by rail automatically tied down and completely enclosed in a container like the Stac-Pak."

A remaining major traffic problem, said GM's president, is the fact that computers frequently cannot talk to each other. "We need to create computer-to-computer high-speed transmission of documentation that can cross corporation lines, carrier lines and even national lines," he said. "This means standardization of bills of lading and other transportation documents and contracts."

Southern/CG open new yard

Southern and subsidiary Central of Georgia have opened a consolidated, 1800-car-per-day classification facility at Savannah named after retired CG President W.E. Dillard. Prior to the unification on a site which has space for future growth, Southern and CG had separate yards about 5 miles apart. Dillard Yard eliminates inter-yard transfers and expedites delivery of cars to customers. A new car repair facility is part of the installation.

CONNECTS WITH ALL INDIANA HARBOR BELT CHICAGO RAILROADS

INDIANA HARBOR BELT RAILROAD MOVES AHEAD WITH ACI

The Indiana Harbor Belt Railroad has announced the forthcoming installation of an ACI Systems Corp. data collection pilot system which will scan entries and departures at the east end of the Indiana Harbor Belt Gibson Yard. This initial installation will consist of three Rail Scanners multiplexed to one ACI Systems Corp. LDP (Label Decoding Processor). The Indiana Harbor Belt Railroad is an important switching carrier and has 26 connections with major railroads.

The three ACIS Scanners will input data to the Indiana Harbor Belt Railroad IBM 360 Model 30 Computer for processing and, when the system is expanded, it will make possible real time car records, improved utilization of equipment and car accounting . . . as well as a wide range of operation reports for terminal management personnel.

ACI Systems Corp. has total responsibility for the installation . . . with the exception of turn-on circuitry, which will utilize conventional track circuits supplied by the IHB.

We're proud that the IHB has selected our system for their initial utilization of ACI, and we're also pleased that it will be one of the first installations for the proposed General Manager's Association of Chicago ACI interchange and information system.

ACI Systems Corp. continues to serve railroads as a clearing house of the best methods for terminal control through ACI. If *you* have a problem in terminal control, let us show you how ACI can help solve it. *It's our number one job!*

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Circle 7 on coupon page 35

The TurboTrain heads for the hills

DOT began a TurboTrain experiment Feb. 7 over the mountainous Washington, D.C., to Parkersburg, W. Va. route, using its leased TurboTrain formerly in service between Boston and New York.

The New England equipment has been replaced by DOT's other leased TurboTrain, fresh from the shops after refurbishment.

DOT Secretary John A. Volpe hailed the experiment, saying it would cut one and one-half hours from the former nine and one-half hour run performed by conventional trains over the 351-mile route.

Volpe said the varied weather conditions in the mountains would provide useful TurboTrain operating data.

TurboTrain's pendulous suspension system and rapid acceleration and braking performed "beyond expectations," according to FRA engineers, in speed tests over the route last month.

They said the equipment successfully endured braking tests on both ascending and descending grades, heat measurement of wheels, a startup from dead stop on 2.69 grade, and speeds up to 100 mph. They also noted the TurboTrain was compatible with the Baltimore & Ohio signal system.

The experiment is expected to last about six months. On completion, Amtrak will furnish FRA with an engineering report on the train's fuel consumption, brake wear, and maintenance and service cost data.

Amtrak President Roger Lewis commented, "We will be able to gauge very quickly public reaction to better equipment, improved schedules, and reduced travel time on what has been a lightly-patronized line."

Amtrak's conventional train, the "West Virginian," will remain in service over the route on weekends.

As Amtrak moved in this and other ways to polish up its service and its image, Congress was moving toward granting the corporation's request for $170 million to keep it operating until July 1, 1973.

The House Transportation and Aeronautics Subcommittee approved the request Feb. 2, with amendments, sending it along to the full House Committee. A companion bill, without amendments, had already cleared the Senate Surface Transportation Subcommittee.

The House subcommittee's amendments specified that $147.6 million of the new funds be earmarked for new equipment; that $2 million a year be spent toward establishing routes linking the U.S. with Canada and Mexico; that Amtrak purchase equipment for small shipment rail express service; that the corporation submit on-time performance figures in its annual reports to Congress.

Hauser, Ida., picked for new BN yard

Burlington Northern's new classification yard in the Spokane area will be built at Hauser, Idaho, about 20 miles east of Spokane. The estimated cost: $30 million. BN President Robert W. Downing said the Hauser site turned out to be the best available for a facility of the size BN plans. Existing yards (Hillyard and Parkwater) in Spokane will be retained for local switching, but neither offered the expansion potential which BN wanted.

BN engineers are still working on final design of the new yard, which will be built on an 1,100-acre site. With up to 76 class tracks, BN says it will have "the potential for handling the greatest number of cars" of any BN classification facility. Construction may begin by late summer; completion is set for 1975.

With the Hauser announcement, BN now has a $70-million investment committed to two major yard projects. Construction is already under way on the new Northtown Yard, a $40-million facility at Minneapolis.

Turnaround for the Milwaukee

Milwaukee Road made a sharp turnaround in 1971, going from a consolidated net loss of almost $11 million in 1970 to a net figure of more than $2.4 million (before extraordinary charge) last year. Milwaukee's Amtrak-related writeoff totaled more than $24 million, giving the road a net loss after charges of $21.7 million. Revenues for the year rose to $301 million.

The upturn in operating results, Milwaukee says, "was due principally to freight-rate increases, the development of new business produced by new services and routes resulting from ICC-prescribed conditions in connection with Burlington Northern merger, and savings from the transfer of intercity passenger operations to Amtrak."

Meanwhile, Chicago Milwaukee Corp. reported it has received, under an exchange offer, more than 82% of the preferred and more than 86% of the common stock of Milwaukee Road. Chicago Milwaukee directors had declared the offer effective Jan. 14.

Pullman drops its commuter-car suit

A protest that grew out of the awarding of an $84-million contract for 214 commuter cars to General Electric came to an end Jan. 28 when Pullman, Inc., announced its withdrawal of an appeal seeking injunctive relief against the awarders of the contract. Pullman elected to withdraw its appeal after reviewing the judge's decision in the case. General Electric will build the cars.

SP's big program -and what it means

Southern Pacific is stressing not just the dollar amounts—which are impressive—but also the service-improvement factors in capital-improvement spending. SP General Manager R.L. King had this outline of current programs, for the Northwest Shippers Advisory Board:

—Orders have been placed for 175 diesel-electric units in the 3,300-to-3,600-hp range with deliveries beginning last year and ending in June 1972: "After allowing for replacement of retired units, these acquisitions will result in a 12% net increase in road horsepower, substantially above the projected increase in traffic. This is being done for service reasons only, with the expectation that average train speed will be improved and power delays at terminals reduced."

—SP acquired 22 1,500-hp switch units last year and has 67 on order for delivery this year: "These units will for the most part be used to replace older switchers in the 900-to-1,200-hp category. This increase in horsepower and substitution of newer, trouble-free locomotives should be reflected in improved service. These new acquisitions, as well as a large number of our existing switchers, are compatible with road locomotives and are used to augment the road fleet whenever and wherever possible in improving service in line-haul operations."

—Total new-power investment adds up to about $81 million. In addition, SP rebuilt 69 units last year and plans rebuild of 44 units in 1972, at a total cost of about $8 million.

—New-freight-car deliveries total 8,195 units, 1971-72, at a cost of $166 million: "There was also recently authorized an additional 5,664 freight cars for which orders have not been placed. These will cost us about $107 million."

—Freight-car rebuilding, 1971-72, covers 3,305 box cars and 500 flat cars at a cost of $29 million.

Lines on Labor

GUS WELTY

STARTUP TIME ON RULES CHANGE

Now that the United Transportation Union has—at long last—signed the wage/rules agreement worked out last summer, railroads and the operating unions can—also at long last—start the long process of bringing work rules and operating practices into the 20th century. Of course, change will not come overnight. On such items as setting up interdivisional runs, negotiations will be required—but at least the agreement provides a fixed timetable for implementing change. On such items as changes in operating procedures in major terminals, broad policy is contained in the agreement but details may have to be worked out by the involved roads. In any event, change is now possible.

THE UTU AGREEMENT: WHAT CAN AND CAN'T BE DONE

In the time that has passed since the UTU pact was put together, just about anybody could be forgiven for forgetting what's in it. First, UTU had to go through a ratification procedure—and in the midst of that came Phase I of the wage/price freeze. Next, UTU found itself in a touchy situation with the Phase II pay board—and the signing came only after the union got satisfactory answers to its questions. Thus, an agreement which Railway Age outlined last Aug. 30 actually came into being five months later, in late January.

Briefly, these are among the key points:

—Wage increases total 37% (42% compounded) over a 42-month period ending in mid-1973. Vacation, holiday and jury-duty benefits are liberalized effective in '73.

—Railroads get the right to use yard crews to switch pre-existing industries between new industries and switching limits within a four-mile radius of limits.

—Railroads may require road crews to receive solid trains from a connecting carrier or deliver solid trains to a connecting carrier. Other provisions cover specification of additional interchange tracks, doubling on interchange tracks, and two-way movements of interchange crews.

—Road/yard operating procedures are liberalized to the extent that road crews may be required to perform additional duties, without penalty.

—Use of radio is made a part of employee duties. Arbitraries are to be eliminated in 1973; at the same time, ground-service employees without a mileage component will receive a $1 per day increase.

—Provisions are made for operation of interdivisional runs, both those that do not run through home terminals and those that do. In each case, arbitration may be invoked.

—Employee protection is provided for employees adversely affected by various applications of the agreement.

COMING UP: A PAUSE—TO REFRESH AND REFLECT

The rules changes should permit significant improvement in operations. But equally important—maybe more so—are two final provisions. One calls for a moratorium on new demands which lasts until next Jan. 1. The second provides for a joint and continuing discussion of many of the most troublesome rules issues, including bases of pay. And that could be the real key to the agreement's success.

John Volpe: "Nationalization? I

In a wide-ranging discussion of the triumphs, and frustrations, of his three years in office, DOT Secretary John A. Volpe conceded that nationalization of railroads is a possibility; but his replies to questions posed by Railway Age underscored his belief that it can be avoided. This is what he said:

"Given a healthy economic and regulatory

all railroad managements

Q. You have often stated your commitment to a balanced transportation system. Can you identify any specific steps which the DOT will take during 1972 toward that end?

A. In our efforts to redress the imbalance in the national transportation system I think it is fair to say we have not achieved the degree of success in addressing the problems of the railroad industry that we have met in the other modes of transportation.

To be sure, the National Railroad Passenger Act that created Amtrak relieved the industry of some $200 million of losses incurred in the passenger service. But I am among the first to admit that action was no cure-all.

We sent to Congress in November of last year two legislative proposals designed to update transportation regulation and provide immediate relief for the railroads. These are the Transportation Regulatory Modernization Act and the Transportation Assistance Act.

We shall this year work vigorously for the enactment of these measures. If our efforts meet with success we will have taken yet another major stride toward the goal of balanced transportation.

As you know, the Transportation Regulatory Modernization Act would give rail carriers greater freedom in setting rates and thus make them more flexible in meeting competition and responding to changing conditions. The act also would facilitate the abandonment of uneconomic branch line trackage.

The Transportation Assistance Act would create a $3 billion revolving fund to insure the railroads' equipment obligations.

Q. Under Secretary Beggs was quoted in the Wall Street Journal January 6 as stating that it was "conceivable" that the DOT might recommend nationalization of the railroads. Under what specific conditions do you think nationalization is "conceivable"?

A. If the Federal support needed to keep the nation's railroads out of bankruptcy were to become so onerous that it approached the cost of nationalization, then, I would think, this Department as a servant of the taxpayers would be compelled to consider nationalization. But such a circumstance is a real "long shot."

Q. To keep the railroads under private ownership, what steps do you feel ought to be taken in 1972 by (1) the railroad industry itself, and (2) the Federal government?

A. I can easily point to symptoms of the ills of railroading that cry out for a cure. For instance: The average freight car moves only two and a half hours per day at an average speed of 20 miles per hour. I have seen estimates that indicate only one in three rail shipments arrives on schedule.

I told you what the Federal government hopes to do in 1972 to keep the railroads under private ownership. If we are successful in securing the passage of legislation that will enable the railroads to more strongly compete in the transportation marketplace, if we ease the problem of abandonment of uneconomic trackage and if we make possible the freeing of funds for investment in much needed equipment—if we succeed in doing all these things—it will have been for nought if railroad management does not take the maximum advantage of these opportunities.

We are all too quick to categorize. I need not tell you that there are now major railroads whose managements are competing vigorously and successfully. I am confident that, given a healthy economic and regulatory climate in which to operate, all railroad management can do the same.

Q. Railroad men contend that it will be cheaper to help railroads to help themselves than to go the takeover route. Do you think that any of the legislation now before Congress would help to accomplish the former?

A. Yes. I hope I have made it clear in answering previous questions that the major thrust of our surface transportation legislative program is to help carriers to help themselves.

Our proposals are premised on the belief that increased reliance on competitive forces and the ability of regulated surface transportation carriers to respond to these forces free of unneeded constraint is an essential prerequisite to the revitalization of a privately-owned transportation system.

would call it a real long shot"

climate in which to operate, can compete vigorously and successfully"

We estimate that passage of the Transportation Regulatory Modernization Act would present railroad management the opportunity to free itself of an estimated $480 million annual loss now incurred in transporting traffic at below compensatory levels. Also, passage of that proposal would, we estimate, encourage more rapid abandonment proceedings for 21,000 miles of uneconomical trackage. Certainly, these are concrete examples of our intent to help railroads to help themselves.

The intent of the Transportation Assistance Act and the $3 billion fund it would create to insure the railroads equipment obligations is purely and simply a self-help measure.

Q. Do you perceive any fundamental improvement in the Penn Central situation?

A. Yes. Penn Central under the management of the Trustees has made continued improvement in reducing costs and losses and in improving efficiency and service. However, much remains to be done before Penn Central can be expected to generate a positive cash flow.

The situation is not quite as bad as we were originally led to believe it could become. But I am in complete agreement with that statement made in the Trustees' year-end 1971 report that "it cannot be concluded that the Penn Central crisis has passed."

It seems to me there is little point to speculating on the future of Penn Central until the acceptability of the Trustees' reorganization plan to the Reorganization Court is determined.

Q. Mr. Secretary, you have now been in office three years. What do you consider to be the main accomplishments of the Department during that period? What have been your principal frustrations?

A. I came to Washington in 1969 determined to do my utmost to bring better balance to our national transportation system and in that effort I have achieved a measure of success. We have had since 1970 the legislative programs and the funding levels that have enabled us to make an aggressive start toward attaining balance.

To translate a generalized statement into specifics: I am very proud of our legislative accomplishment which saw enacted in 1970 the Urban Mass Transportation Act, the Airport/Airways Act, the Rail Safety Act, the Rail Passenger Act and the Federal Aid Highway Act. I think our record for achieving the passage of vitally needed legislation is unsurpassed by any other Department.

As to frustrations, I have been in government and politics long enough to learn the necessity of enduring some defeats as the price one pays for winning victories. However, I admit to almost daily frustration by the amount of time it takes to get things done.

This is a complaint I share with President Nixon. I fully support the efforts he has made to make the wheels of Government turn more quickly by transferring more decision-making responsibilities to the regional level.

The President's revenue-sharing proposals would direct funds to the state and city levels where they could be more quickly applied to solve local problems by those officials best equipped to solve them. And, as important, his plan for reorganization of the Federal Government would streamline and improve the coordination and management of Federal programs.

Q. Are you satisfied with the progress to date of the urban mass transportation program?

A. No; nor am I satisfied with the progress to date in any of our programs. I always have and always will operate under the premise that more and better effort can be made.

This is not to say that I cannot review the progress made under the Urban Mass Transportation Assistance Act with some satisfactions. In the 18 months ending this coming June 30, we will have obligated $1 billion for urban mass transit—a sum greater than the total Federal funding for the preceding five years. Beginning July 1, we plan to fund the program at $1 billion annually.

Our total commitment under this program is $10 billion over a 12-year period. Many contend that amount of money will fall short of meeting the need to assist the nation's cities and towns to upgrade existing systems and to build new systems. I think it is well to remember we are in the early stages of this assistance program. I am confident that we will achieve meaningful results in improving urban mobility and easing urban congestion. If my confidence proves to have been justified, I am sure somewhere down the road there will be a reexamination of urban transit funding levels.

Q. Do you agree with those who feel

that local governments should be permitted to spend their share of Federal transportation money, including that derived from Highway Trust Fund, for whatever transportation projects they feel to be most urgent?

A. If by that question you are asking me if I support President Nixon's Revenue Sharing Program for Transportation, the answer is most emphatically yes.

It should be made clear that under the President's proposal, transfers from the Highway Trust Fund in any year would equal the amount obligated in the previous year for highway purposes. In other words, Transportation Revenue Sharing would maintain for the Trust Fund the same principles that now exist.

I have for some time advocated that the states and cities should not be constrained in transportation decision-making by the availability of funds under rigidly structured Federal programs. Transportation Revenue Sharing would give the cities and states the ability to apply the greatest amount of resources to the greatest transportation need. Governors and mayors are in a far better position to prescribe the remedies for transportation problems than are officials in Washington.

Q. Has Amtrak lived up to your expectations so far? What do you foresee for Amtrak in the next five years?

A. I think we too quickly lose sight of Amtrak's tender age. It begins only its tenth month of operation on February 1. If a year ago you had asked me what I hoped Amtrak would accomplish during its first nine months of operation, I think I would have replied: "Preserve for the nation a viable intercity rail passenger service."

Others may have had greater expectations, but, in any event, that is what Amtrak has done. It is no small accomplishment. Consider if you will, and take into consideration the present financial condition of many of the privately-owned railroads, what would be the state of passenger service today without the National Rail Passenger Service Act that created Amtrak? I would imagine the answer would be utter chaos, if, in fact, there would have been intercity passenger service at all.

I have from the beginning believed that intercity rail passenger service has a vital role in a balanced national transportation system and the Department's analyses continue to support this belief. Well before five years has passed, I predict Amtrak will have determined the level and service to which passengers will respond in sufficient numbers to make that service economically feasible and the routes that bear that potential. I fully expect to see Amtrak at age-5 enjoying robust, good health. ■

MOVING PEOPLE

Coming: UMTA's

By FRED HOUSER, Mechanical Editor

For Fiscal Year 1973 the Nixon Administration has submitted the first billion-dollar budget for the Urban Mass Transportation Administration. As recently as 1970, UMTA's budget was only $150 million. There seems also to be a reordering of priorities. With his State of the Union message, President Nixon observed that highway building has had the nation's first priority for two decades. "Now," he said, "we must write a similar success story for mass transportation in the 1970s."

What will a billion for the year starting July 1 mean to UMTA? Administrator Carlos C. Villarreal probably is most encouraged about the growing ability of local communities and agencies to come up with their 1/3 share of projects for which the Federal government will provide 2/3 funding. So far, this means capital grants although there is increasing local pressure for some sort of Federal assistance in making up operating deficits.

● **"Transit assistance."** Right now UMTA is drafting a proposal for Transportation Secretary John Volpe outlining different alternatives for implementing a program of "transit assistance," as the subsidy probably would be known if it came under Federal aegis. The Administration is far from sold on a program of Federal subsidy for local transit deficits: under exisiting Federal law there can be no such expenditure for meeting operating losses. However, big cities are putting growing pressure on Congressmen for just such a subsidy program.

In January UMTA officials met with representatives of the transit industry, the U.S. Conference of Mayors, the National Governors' Conference and the National League of Cities to identify those "alternatives" for transit assistance which are soon to go to Volpe. It has been UMTA policy that "making up any operating deficit is a local responsibility," says Villarreal. "And the big problem is: Will Federal transit assistance really improve public transportation?"

There seems no doubt that Federal subsidy supplements would be couched in terms of "incentives"—service improvements, increased patronage, greater operating efficiency and even steps to deter auto traffic in the CBD. Differences in operating practices and accounting on different transit properties would make it difficult indeed to define "efficiency." But if transit assistance went through, certainly DOT would establish limits to deter cities from coming back each year for increasing subsidies without commensurate operating improvements.

● **Capital grants.** Villarreal is most proud of the progress of UMTA's capital grant program which resulted from passage of the Administration's Urban Mass Transportation Assistance Act of 1970. "After high priority had been placed on improved public transportation at the national level, it motivated priorities at the state and local levels," he explains, adding, "local agencies devised ways to generate their funds. Already $1.3 billion has been obligated and there are new grant applications for $1.1 billion."

Villarreal cites the list of commitments at the state and local levels recently reported to the National Transportation Institute by Robert M. Coultas, executive vice president of the Institute for Rapid Transit.

—Late last year California removed the exemption of a state sales tax from gasoline, allowing 0.25% of an optional local sales tax increase to be used for public transportation.

—In November 1971 Atlanta voters approved a transit building and financing package involving a 1% sales tax for ten years which provides for acquisition of the local transit company and gave a go-ahead for the building of 56 miles of rail rapid transit (RA, Dec. 13, 1971, p. 26).

—While New York State rejected the $2.5 billion 1971 transportation bond proposal, over $800 million from the 1967 transportation bonds is now being poured into the New York City Transit Authority; tolls on New York City bridges and tunnels were recently doubled with the additional $50 million in revenues being split between subways and commuter railroads.

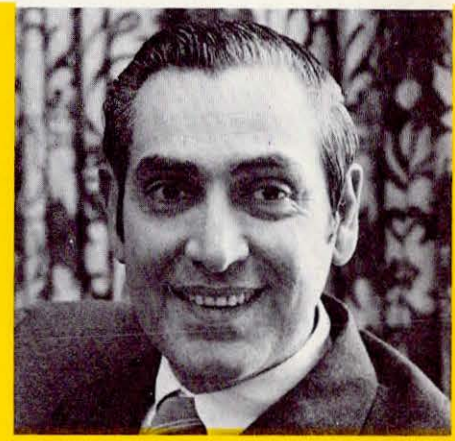
—In January 1972 the "Big Four" automobile manufacturers, in a major policy shift, backed Michigan legislation that would divert part of the gasoline tax revenues to support and develop public transit in the state's major cities.

—In last year's election, Massachusetts voters passed the $124 million bond issue, the state's matching funds for an UMTA capital grant that allows the Massachusetts Bay Transportation Authority to proceed with its Boston

first billion-dollar year

Capital grants will top $800 million

	FY 1973	FY 1972	Change
Capital facility outlays	$841,400,000	$510,000,000	+67%
Technical studies	33,500,000	25,000,000	+34%
Research, development and demonstration	115,000,000	62,000,000	+85%
University research and training.	2,500,000	3,000,000	-17%
Managerial training	500,000	—	—
Administrative expenses . . .	7,100,000	6,200,000	+15%
TOTAL	**$1,000,000,000**	**$606,200,000**	**+65%**



"National priority has now motivated priorities at the state and local levels. . ."
. . .Carlos C. Villarreal

area transit lines (RA, Oct. 11, 1971, p. 18).

—Early this year the governor of Maryland pledged state financing for the $219 million local share of the first phase of a Baltimore area rapid transit project; a two-cent gasoline tax increase is to be the basis for the financing program.

—The Illinois legislature passed a $200 million bond issue for mass transit last year; Chicago and Cook County are providing operating assistance to the Chicago Transit Authority.

• **Slow the flow?** Transit operators are looking warily at new demands for highway and airway spending that could slow the flow of funds to urban mass transportation. Even Amtrak's search for an additional $170 million could have its effect. IRT's Coultas recently decried "an ever-increasing maze of procedural requirements imposed upon the transit agencies which are difficult, or impossible, to meet." There has been particular concern about UMTA's "capital grant criteria," and their negative effects on rail transit systems.

Because of special requirements and the cost involved, says Villarreal, "relatively few cities in the U.S. lend themselves uniquely for rail rapid and rail commuter service." He spelled them out recently for the National Highway Research Board. In addition to existing and building systems, he named Baltimore, Atlanta, Miami, Houston, Seattle, Los Angeles, Buffalo and Twin Cities.

"In those cities where rail transit would make a contribution, we must be assured that the regional planning has been done well," says Administrator Villarreal. "Traditionally we have had a 'balanced program' with 70% to 75% of the budget going to rail-related projects. What we do not want to happen is to have new rail lines become obsolete even before they are opened due to changing urban patterns."

In recent years, UMTA has picked up the tab, in full or in part, for 1,072 rail rapid transit cars, and 885 commuter railroad cars, financed 181 miles of commuter railroad modernization projects and committed Federal aid for 70 miles of rail rapid track extensions.

• **Crucial criteria.** Within 30 to 60 days UMTA expects to issue capital grant criteria that would be used in deciding whether a city qualified for funds to build rail transit lines. The first criteria proposals caused IRT President Dr. William J. Ronan, chairman of New York's Metropolitan Transportation Authority, to state that "we are against attempts to impose any criteria when there are none for highways, airways or waterways."

"Such mass transit criteria are important," responds Villarreal. "If we are to obligate a billion dollars or more a year, there must be some accountability and evaluation for these large sums of taxpayers' money. We plan to make technical study moneys available to the local communities to generate the data that would be required but is not readily available now. I feel confident that we can work out any differences that might exist on the criteria."

• **Vehicle research.** UMTA is seeking also to control the costs of new cars. The R&D program for rail is to be stepped up from $17.2 million this year to almost $30 million in 1973. Included will be the pair of "state-of-the-art" transit cars being developed by Boeing and St. Louis Car. The main purpose of the SOACs is to make short-term improvement in suspension, communication and control, sound-proofing and propulsion. "Improvement in suspension is really the way we should go," says Villarreal.

Prodded by Villarreal and Transportation Undersecretary James M. Beggs, UMTA has been developing standards and specifications to overcome the lack of uniformity in transit vehicles. Boeing's Vertol Division has been retained to prepare guideline specifications for rapid rail cars that should "serve to reduce the costs and provide better means of evaluating bids," according to the Administrator. "They should also improve the reliability, maintainability and safety."

What are his conclusions from three years as head of UMTA? Says Villarreal: "Money alone will not solve transit problems. There are some social critics apparently under the impression that money is more important than brains in supplying urban transportation. Obviously we need both." ■

Denver looks (cautiously) at transit for the masses

By JOE ASHER

Would you believe Denver as a coming mass transit city? Easterners tend to dismiss it lightly as a small-to-medium-sized commercial center for the Rocky Mountain region. Or pass through it quickly on their treks to nearby ski resorts and dude ranches.

But look again. Denver has definitely come of age as a major population and business center. The city itself holds around 600,000 people, and it's one of the few of that size or greater that hasn't shrunk in the past decade. Just as important, the metropolitan area numbers about 1.4 million people. The planners are projecting that will grow to 2.5 million by the year 2000.

That's where transit comes in. In years gone by, the State Highway Department did the bulk of the transportation planning, and the results were fairly predictable: traffic congestion at peak periods, urban sprawl, air pollution. Denver has one of the highest per capita rates of auto registration in the country—around five. And it's one of the top 10 cities in the country in point of air pollution.

So now environmentalism has turned into a hot political issue locally, and the planning doesn't all go to the highway people by default. The area is full of ex-southern Californians who came to Colorado to escape the freeway free-for-all. They're the ones who spearheaded a bumper sticker campaign with a slogan exhorting everyone not to let Colorado become another California.

This is not just vague sentiment. Much as in the case of San Francisco, where important highway plans hit roadblocks, local people were able to halt two freeway connecting links. People are not as fatalistic as they once were about having homes and businesses steamrollered out of existence to make room for new roads.

Into the breach has come a seven-county agency, the Regional Transportation District. In existence since 1969, the organization works together with the Highway Dept., the regional council of governments, and since last July, with a new joint regional planning board.

The RTD itself has a 21-member board that draws on a wide cross-section of the community and has good political pipelines, according to Harry L. Parrish, Jr., its executive director.

As for the highway people, Parrish notes, "They work closely with us and they certainly cooperate on studies. That's simply smart politics—it may even give them a chance to build more eventually. Until now, they've faced resistance for some of their own plans when people kept asking—does this plan allow for expanding public transportation? Now they can say, yes, it does."

Allen Kanter, Denver's newly appointed director of the planning commission, notes the same cooperation from the highway people, confirming that "They are looking for coordination." Kanter goes on to say he is certainly a mass transit booster: "The flat topography here certainly means opportunities for transit. Given the scatterization, I don't know about the feasibility of an underground system of the BART type here. I haven't gone into the technical aspects. But I have noticed a proliferation of rail trackage in the area, and some combination of rail and bus lines ought to be looked at. The new people-movers are also a thought."

As for palliatives like car pools and encouragement of outlying parking, Kanter says, "They've been tried, and I can't say they are working yet. I would say that it isn't easy to get people out of the automobile habit, and that we have to change some of the thinking."

The task of helping along the change in public thinking is obviously Parrish's. It can be argued that his RTD group has gone about the task super-carefully and shrewdly. It may also be argued that he is leaning over backward to avoid offending anyone, and in the end accomplishing little.

On the positive side, RTD avoided falling into the usual trap of transportation studies—traffic headcounts, followed by a quick list of the usual demographics, and then to the drawing board to draw the trend lines out the same way they are going.

Instead, the organization used the new pro-ecology sentiment to conduct "inventories" of all the region's resources—social, economic, ecological, and man-made environmental. To nobody's great surprise, the data showed strong traffic corridors already in existence, and made it clear that further urban sprawl will only make for economic waste.

Also on the positive side, the RTD used $100,000 in study money from DOT to look at "personal rapid transit" in the form of people-movers. RTD hopes to use one of the four systems to be showcased at Dulles Airport this year for demonstration purposes locally, to boost the glamor image of public transit. James H. Graebner, well known to transit people from his years at Pullman, WABCO and W.C. Gilman Co., is project director.

Less positively, there is room to wonder if Parrish and his RTD are following the full implications of their own studies. A Phase I report just released indicated gradual addition of medium and heavy-type transit systems as possibilities for the long-term, not in the next five to ten years.

Phase Two is in progress right now. It's the period in which concepts will get turned into specific action proposals. It may be that Parrish is simply setting forth all the alternatives. But there is a delicate line between tact and do-nothingism. It will have to be crossed soon. ■

MOVING PEOPLE

Garrett, GE to build gas turbine/electric prototype rail cars

The Garrett Corp. and the General Electric Co. each will build four prototype rail commuter cars powered by a gas turbine/electric propulsion system for New York's Metropolitan Transportation Authority. MTA on Jan. 30 announced the award of a $6,541,521 contract to Garrett, and said a similar contract would soon be awarded to GE. The Garrett cars are to be delivered in October 1973; after three months of testing, they will be tried in revenue service on the Erie Lackawanna. Total cost of designing, manufacturing, demonstrating and testing the eight cars is estimated at $14.8 million. Funding will be provided by a Federal grant of $7.4 million; a contribution of $6,825,201 from New York State; $494,799 in service costs which will be absorbed by Garrett; and $80,000 in service costs which will be borne by GE. Said MTA Chairman Dr. William J. Ronan: "We believe that the gas turbine/electric car will make possible a vast improvement in service on rail lines which are not equipped with a third rail or overhead electrification system. The gas turbine engine will enable such cars to accelerate as rapidly, and travel as fast in non-electric areas as modern electric cars can in electrified territory."

Lindenwold hauls its 25-millionth passenger

The Lindenwold-Philadelphia High Speed Line was three years old on Jan. 4, but the Port Authority Transit Corp., which operates the line, delayed the official celebration until Jan. 31. That was the day the mathematicians told PATCO that Lindenwold would carry its 25-millionth paying customer. The first entirely new transit system built in the Eastern U.S. in half a century, the Lindenwold has consistently been a success story. It now carries more than 36,000 commuters a day and the number continues to rise. Some 40% of these commuters formerly traveled by private auto, according to PATCO surveys. PATCO believes the real significance of its success story is that "it determined for the first time in the modern era that man could be lured from the comfort and convenience of his private automobile to regularly use a new concept in public mass transportation."

Rubber-tire system proposed for Honolulu

An 18-mile subway/elevated transit system running from Pearl City (near Pearl Harbor), through the International Airport, to the congested CBD, past Waikiki to Kahala (behind Diamond Head), has been recommended to the City of Honolulu by the Los Angeles engineering firm of Daniel, Mann, Johnson & Mendenhall. The firm proposes a system using lightweight, pneumatic-wheel cars 35 to 40 feet long. The trunk-line system would be fed by buses and/or "people movers." Estimated cost: $600 million. The preliminary report is part of a $1.4-million over-all study which is to be completed next fall.

Gas taxes may help Los Angeles get started

The Southern California Rapid Transit District plans to use gasoline taxes to finance the one-third local share of a proposed $420-million "starter system" of rapid transit for the Los Angeles area. A 1971 California law extends the state sales tax to gasoline starting in July 1972 and specifies that the resulting revenues may be used for mass transit. The planned route would start at the terminal of the proposed 11-mile El Monte-Los Angeles Express Busway, tunnel through the downtown area, and extend as a surface/aerial line to the proposed Century Freeway, for which a 15-mile-long transit corridor has been planned.

THIS ROADBED REMAINS CLEAN a full six months after application of what is called "pre-emergent treatment."

Weed control takes a big step forward

In 1971, a major railroad tried a new approach for the control of vegetation on its roadbed section. Instead of using spray trains to apply a post-emergent formulation, it used pre-emergent Atratol 80W applied by licensed applicators. Results have been so promising that the road plans to repeat this treatment in 1972, with some variation in both the formulation and rate of application to suit weed conditions.

For many years the road used spray-train equipment to apply a creosote-distillate formulation. Results were mixed, from poor to good. But, in 1954, the road changed to a chlorate-borate solution, sodium metaborate, 2, 4-D amine, a wetting agent, water and the necessary inert ingredients.

This treatment was continued. But, as on most railroads, there were never sufficient funds allocated to weed and brush control to get over more than the more-important lines of the road. To get the most from allocated funds, the treatment was not applied strong enough in some places to eradicate all weeds on the lines treated. As a post-emergent treatment, the work was begun in mid-May and ended about mid-July.

• Dead vegetation is a problem. In an effort to reduce the incidence of right-of-way fires in one state having stringent fire laws, a different treatment was necessary for the road's tracks in that state—where, because of its mountains, the amount of rainfall varies considerably.

The road knew that no one chemical would kill all species of plants native to both the wet and dry territories. But, in the interest of not having any dead vegetation that would contribute to the hazard of fire, it was decided to use a pre-emergent treatment over all lines in that state for the 1970 program, then to evaluate the results for modifying the treatment for the following year to kill the surviving species and to suit the rainfall of the areas.

• Good kill with light application. A combination of chemicals—Atratol 80W and 2, 4-D amine—was selected. The

UNTREATED VEGETATION is shown flourishing on the sidetrack at the left.

Atratol 80W is a non-selective herbicide formulated by Geigy Agricultural Chemicals Division of Ciba-Geigy Corp. to kill weeds and grasses on non-crop areas. The 2, 4-D amine, produced by several herbicide formulators, was intended to kill the broadleaf species. A herbicide applicator was engaged to apply this chemical formulation at the rate of 4 pounds of 2, 4-D amine and 8 pounds of Atratol 80W per acre. The time of application was advanced to start in mid-March and end in mid-May. The resulting kill was reported to be good.

(continued on page 27)

Circle 8 on coupon page 35 ▶

Here comes more
dependability
for America's
railroads.
1972
GM
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The 40-2 checklist of added value.

These major improvements add up to more locomotive value than ever before. Each one is the result of our long term engineering commitment, and the cooperation of America's railroads in our continuing field testing program. A few improvements apply only to specific models, usually turbocharged engines. If you'd like more information on these features, and how they will help you, your EMD representative can arrange a thorough presentation.

ELECTRICAL CONTROLS

Single electrical control cabinet with improved ventilation.

Modular plug-in electrical control system.

Module tester for off-locomotive check of go, no-go condition.

Larger capacity power contactors.

Motor operated transfer switches.

Annunciator to reveal and remember problem areas for maintenance.

Dynamic brakes and extended range dynamic brakes that are more reliable and easier to maintain.

ENGINE

Pistons, cylinder liners and gaskets that provide more efficient operation and less exhaust emission.

Stainless steel piston rings that last much longer.

Oil separator and eductor tube that greatly reduces carbon formations.

Main bearings with extended service life.

Viscous damper harmonic balancer is applied to all turbocharged engines.

Turbocharger has been improved so there's virtually no clutch slippage.

Auxiliary generator drive bearing modified to withstand thermal expansion.

ELECTRICAL ROTATING

AR-10 alternator has better rotor coil stability, a larger generator bearing and improved stator insulation for longer life.

Traction motor brushholder is more tolerant of flashovers.

Teflon covered string band improves traction motor reliability.

Traction motor grease seal protects the quality of the bearing lubrication.

Pinion end bearing greatly increases service life.

Traction motor pinion gear has taper ground teeth to reduce wear.

LOCOMOTIVE

Improved radiator cores have thicker headers.

Traction motor and generator blower assembly is simpler, stronger and easier to maintain.

Draft gears have better shock absorbing capacity.

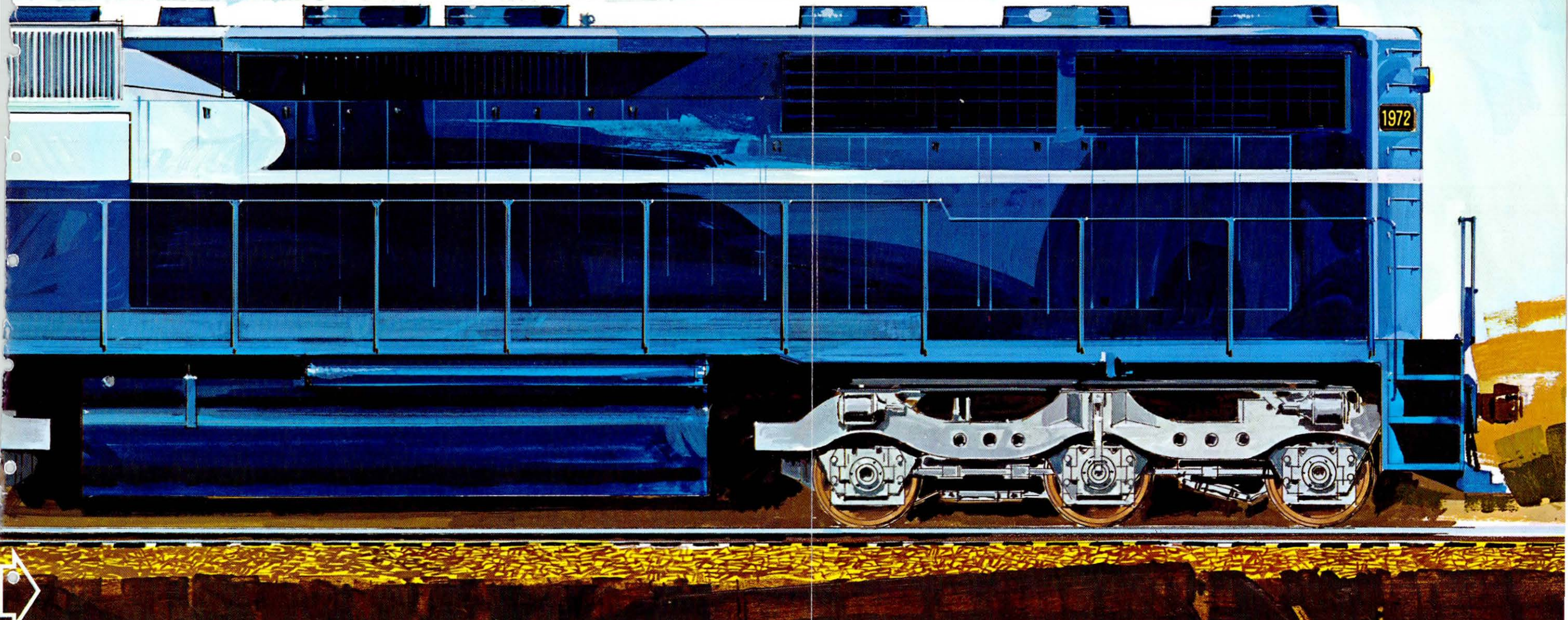
Nylatron pedestal liners last longer than manganese steel.

JEM journal box reduces oil consumption and improves thrust block lubrication.

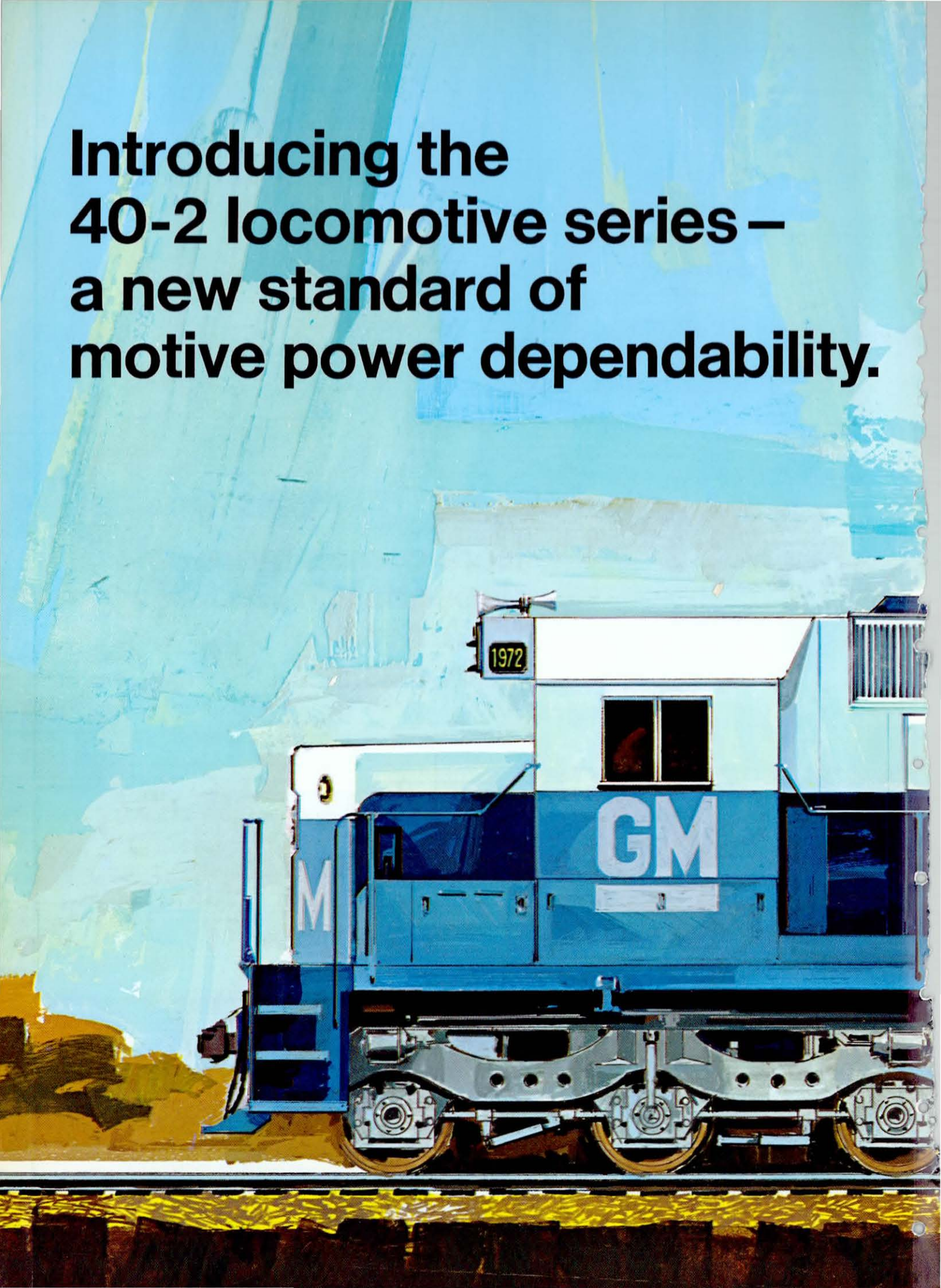
Locomotive cab has new insulation.

Six-wheel, high adhesion truck gives more pull per pound of locomotive.

Optional four-wheel truck with new suspension and single-shoe brake system.



Introducing the 40-2 locomotive series – a new standard of motive power dependability.



When the first locomotives in the 40-2 series came off our production line in January, 1972, they heralded the second generation of 40-series motive power. This means the horsepower increases we made several years ago are now complemented with a major increase in reliability and maintainability.

These new locomotives are the result of our long term engineering commitment.

We asked our customers what they'd like to see changed, while we started on an intensive component evaluation program. These inputs led to the creation of new designs, and the use of better materials.

More than 15 million miles of railroad hauling are behind these improvements.

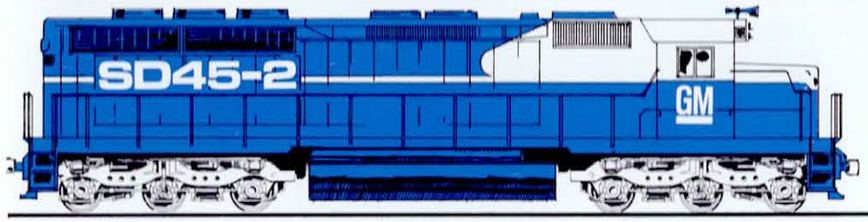
An accelerated testing program under actual operating conditions has proved the superiority of the new components. Now they're being assembled into the more dependable road locomotives that the railroads asked for.

The most significant changes are in the electrical control system.

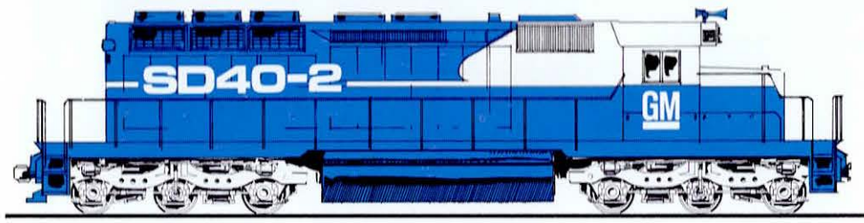
New modular "plug-in" controls make troubleshooting and maintenance several times faster because they can be removed and replaced in minutes. In addition, the system components—switchgear, for exampie—have been beefed up with larger capacities to provide increased reliability and extended service life.

The engines, alternators, motors and trucks were also enhanced by these reliability improvements. Their total scope is outlined on the next page. Each component offers specific advantages in itself. But their biggest value is the overall dependability they bring to the 40-2 road locomotives.

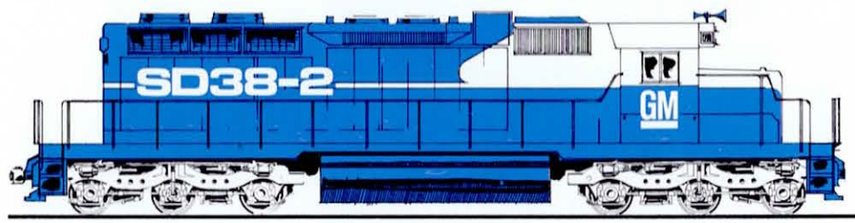
The 40-2 series—
five standard road locomotive models



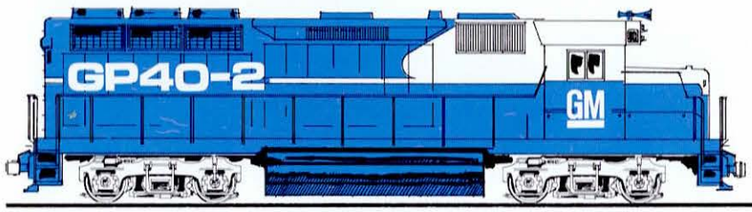
SD45-2
3600 horsepower
(turbocharged)



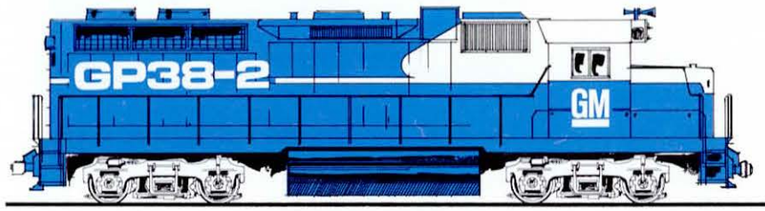
SD40-2
3000 horsepower
(turbocharged)



SD38-2
2000 horsepower



GP40-2
3000 horsepower
(turbocharged)



GP38-2
2000 horsepower

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La Grange, Illinois

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Chicago, Ill.
Cincinnati, Ohio
Denver, Col.
Detroit, Mich.
Ft. Lauderdale, Fla.
Glenview, Ill.
Harrisburg, Pa.
Hartford, Conn.
Hollywood, Fla.
Homewood, Ill.
Houston, Texas
Huntington, W. Va.
Indianapolis, Ind.
Jacksonville, Fla.
Joliet, Ill.
Kansas City, Mo.
Los Angeles, Cal.
Meriden, Conn.
Metropark, N.J.
Miami, Fla.
Miami Beach, Fla.
Milwaukee, Wisc.
Minneapolis, Minn.
New Haven, Conn.
New Orleans, La.
New York, N.Y.
Newark, N.J.
Newport News, Va.
Oakland, Cal.
Ogden, Utah
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Washington, D.C.
West Palm Beach, Fla.
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Winter Park, Fla.

Circle 9 on coupon page 35

Watching Washington

REID BEDDOW

NEW SIGNALING STANDARDS?

The National Transportation Safety Board on Feb. 7 recommended new Federal standards to increase automation in train signaling and to change operating rules while rails work toward full automation. A special NTSB study said that although "only a few accidents are attributed to the failures of signals. . .a significant number. . .could have been prevented or their effects reduced by an expanded or different application of signals or related devices and rules. The study said that while signal systems on U.S. rails "have been well engineered, the maximum practical level of safety in train operation has not been reached."

THE TECHNOLOGY IS AVAILABLE NOW

While not fixing a dollar amount, the study said technology is available at a reasonable cost to provide the signal systems and appliances to overcome accident conditions. Citing FRA figures, the study estimated total accident costs to railroads in 1969 of $427.5 million, not including damage claims and lawsuits and insurance costs. "Although the installation of more and better signals would not erase this damage figure, it would become significant in reducing it," the study concludes. "However, investment in signals would not provide an acceptable return on the investment unless operating rules were improved and made more compatible with the signal system.

Specifically, NTSB recommended that FRA:

—Develop comprehensive signal system standards and operating rules (under authority of the Signal Inspection Act and the Federal Railroad Safety Act of 1970) which as a minimum would (1) equip all mainline trains with locomotive cab signals continuously duplicating the indications of trackside automatic block signals; (2) equip all passenger trains with continuous automatic speed control; (3) direct an engineer who overrode a train control device to take a "prescribed positive action which would be recorded for later reference"; (4) establish a new system to protect trains which stop within 1,000 feet after entering a block from being struck by following trains; and (5) set an optimum number of different signal indications as a standard from which deviations would be allowed only when cause could be shown.

—Develop operating rules "free of vagueness and which specify definitely the circumstances and action to be taken" by train crewmen.

—Review current employee training and develop a joint industry-FRA system for examination and periodic review of employees.

HENRI RUSH JOINS THE FRA

FRA Administrator John W. Ingram announced on Feb. 2 that Henri F. Rush, Jr., had been appointed as the FRA's new deputy administrator. Rush, 34, had been minority staff counsel to the Senate Commerce Committee. The post was last held by Carl Lyon, who has become general solicitor at the AAR. Rush helped formulate the Amtrak Act of 1970.

Weed control gets better and better

(continued from page 20)

Also, in that state fire guards were plowed and, where this work was not suitable for the use of bulldozers, fire guards were sprayed with Aatrex-80W (another Geigy chemical product) by helicopter.

The weed-control program for 1970 on the remainder of the railroad was increased. For this, the company used its own spraying equipment to apply the chlorate-borate solution. The increased program permitted re-treatment of the same territory as covered in 1969, and also of additional main tracks.

For its own spraying in 1970, the railroad applied the chlorate-borate solution at the rate of 175 gallons per acre, which involved 250 tank-car loads of material. On the other hand, in the state having the stringent fire laws, the applicator applied the new material at a rate varying from 20 to 50 gallons per acre. The road reported it obtained better results.

This suggested to the railroad that it could obtain better results with the new material when the work was done by a licensed applicator. To determine the cost for its proposed 1971 program, it sent a letter in the fall of 1970 to six applicators, asking for quotations on the basis of the contractor furnishing his own highway/railway equipment, the Atratol 80W and 2, 4-D amine materials, labor, water and supervision. The quotations revealed that the work could be accomplished within an acceptable cost range.

• **More territory included.** On the strength of these quotations, the railroad increased its program more than 25% for 1971. It divided the territory into six segments and asked for formal bids with separate quotations for each segment. Contracts were awarded to three applicators. The successful bidders were Reforestation Services, Inc., R.H. Bogle Co., and C&D, Inc.

All contractors used highway/railway trucks equipped with front and side booms with multi-nozzles. They purchased the specified chemicals and made their own arrangements for the necessary water. They sprayed a swath 16 feet wide, equivalent to 1.93 acres per mile. The railroad furnished a qualified supervisor to protect each outfit while it was on the tracks.

In addition to the weed-control program in 1971, the railroad also tackled the brush problem. It engaged Nalco Chemical Co. for train-spraying about 2,200 acres with 2, 4-D, 2, 4, 5-T and MSMA.

• **Special work at bridges.** Another facet of the railroad's 1971 weed-control program was the special treatment at bridges. Habco, Inc., was engaged to broadcast the dry chemical Atratol 8-P at a large number of bridges, covering about 200 acres. At open-deck bridges, the treatment was generally begun and ended on the approaches 20 feet from the backwalls. Care was exercised not to allow any chemical to fall into the streams. At ballasted-deck bridges, the chemicals were applied underneath the structures with hand spreaders. In the state having the stringent fire laws, the bridges were treated by Reforestation Services, Inc., with a somewhat different chemical combination because of the woody species present. This included the application of 30 pounds of Atratol 80W, 3 pounds of Amchem Products Amizol and 4 pounds of 2, 4-D per acre.

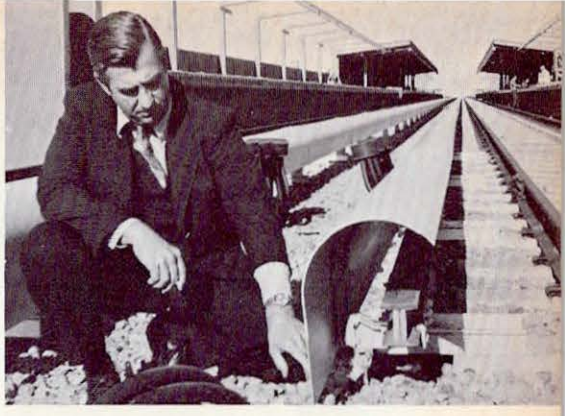
The effect of the new treatment was evaluated by the local division engineers. They submitted reports on their findings. In general, the consensus was that the degree of control was acceptable. In some areas, a later growth of crabgrass and foxtail occurred in late August. There was also some spotty encroachment on the ballast shoulders by vines, woody plants and some resistant species, such as horsetail (equisetum) and braken fern.

• **Adjust rates for this year.** For the 1972 program, the railroad plans to adjust the rates per acre upward or downward to suit the varying lengths of the growing season. It plans to use a combination of chemicals that will kill a broader spectrum of weeds. The 1971 program killed the heavy growth of grasses and broad-leaved plants, thus eliminating much competition for the more resistant species.

Spot treatments needed

Some spot treatments will be necessary, the railroad believes, to kill woody plants and resistant species. Since the truck-mounted tanks have two compartments, different formulations may be carried and applied individually. Also being considered is modification of the herbicide formulation to include a chemical that will have a greater persistency high in the soil. The present formulation provides the initial kill, and the added chemical will offer a more residual action.

The railroad has noticed that the application by contractors has several advantages over using its own spray trains. It eliminates the need for 250 tank cars that were required for materials-handling. It releases locomotives for revenue service. It frees railroad employees for other maintenance. The highway/railway trucks are more flexible for use in terminals. Of growing importance, the new chemicals being used have ecological approval and are applied by trained and licensed applicators. ■



Plastic cover for 3rd rail

For the first time in history, the protective cover for the third or "hot" rail on a transit system will be molded fiberglas-reinforced plastic (FRP) instead of wood. Designers chose a specially-coated FRP laminate over traditional wood planks for the 75 miles of cover on San Francisco's Bay Area Rapid Transit system because its guaranteed service life of 25 years will sharply reduce maintenance costs.

"Material and installation cost of wood is less than FRP," says George E. Scott, general manager of Composite Structures, manufacturers of the cover, "but wood has a service life of only 12 years and it has a 10% replacement rate after only 90 days. Over a 25-year period, the cost advantage favors FRP by more than $5 per linear foot."

The FRP rail cover is expected to last the full 25 years because of the resin/reinforcement combination and the special coating of DuPont's Tedlar that is reported to screen out harmful ultraviolet rays.

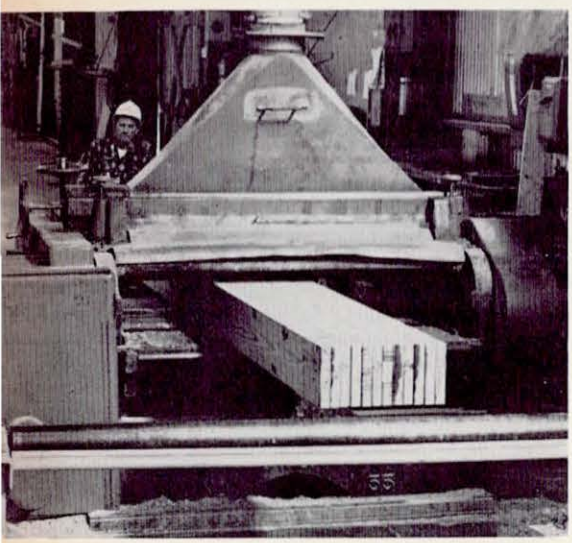
Since BART's third rail carries 1,000 volts—said to be a 50% higher voltage than that of any other U.S. transit system—the FRP cover had to be totally non-conductive. It met stringent ASTM specifications by being capable of withstanding repeated top-load pressures of 250 pounds, and was unaffected by lateral force of 35 pounds per linear foot.

Tests revealed that if the FRP cover should break as a result of excessive forces, its inverted "J" shape would keep it in a protective attitude.

Each 10-foot compression-molded section has elongated holes at both ends to allow for expansion and contraction between contact rail and cover. The joints are the shiplap type for continuous strength and smooth appearance.

The same characteristics that prompted selection of FRP for the rail cover convinced builders to use FRP for applications on BART cars. The aerodynamic front-end section of the "A" or drive cars and the seats throughout the train are fabricated from FRP. ■

L&N BRIDGE No. 168 was built with glue-laminated stringers and concrete caps.



THE STRINGERS in Bridge No. 168 are glue-laminated using 2-inch by 10-inch southern pine pieces in random lengths, then trimmed to a length of 20 feet.

L&N trestle utilizes laminated stringers

Take the standard "workhorse" timber trestle used so widely on the railroads. Apply some advanced ideas of design and construction, such as glue-laminated wood stringers and prestressed concrete caps, and what do you have? You still have a "workhorse" trestle but now it incorporates some advantages over the "standard" structure.

At least that's the thinking of Louisville & Nashville engineers. The thinking was put into practice in the design of a trestle the road built recently to replace a standard timber trestle. Normally, the L&N's standard 6-pile ballasted-deck timber trestle used 10 solid-sawn stringers spanning 12½-foot panels. In the redesigned structure the solid-sawn stringers have been replaced by an equal number of glue-laminated stringers and the length of the panels has been increased to 19 feet. The 17 panels of the new structure rest on concrete caps each supported by six timber piles crossbraced with two creosote-treated timbers. Length of the new bridge, No. 168, is 321 feet.

• **Design advantages seen.** L&N engineers figure that the cost in place of the new structure was about the same as that estimated for a standard trestle designed for a comparable loading and built with solid-sawn stringers. But they see some advantages in the design. One is the bigger drainage openings provided by the longer panels. Another is the rapidity and ease with which the bridge was installed. It is also anticipated that the glue-laminated stringers will have an improved service life and low maintenance costs.

The longer panels of the new structure are made possible by the fact that the glue-laminated stringers (9 inches by 18 inches in cross section) are larger than the 6½-inch by 16-inch members normally used. The stringers form the structural base for the timber members of the ballasted deck. The design basis for the new bridge is Coopers E-80 loading. The comparable specification for the L&N's standard timber trestle is Coopers E-72 loading.

The 170 stringers required for the project were laminated and treated by the Koppers Company, Inc., Pittsburgh. This company also provided the creosoted piling, crossbracing and other solid timbers.

The laminated members, which were produced at Koppers' plant at Morrisville, N.C., and creosoted at Montgomery, Ala., were manufactured from 2-inch by 10-inch southern pine pieces. The stringers provide a stress level of 2000 psi (wet condition), and meet the requirements of specification 203-70 of the American Institute of Timber Construction for structural glued-laminated

timber. In treating the members they were pressure-impregnated with a net average retention of 12.11 lb of 80/20 creosote-coal tar solution per cubic foot of wood.

• Why laminates were used. What prompted the use of laminated members in Bridge 168? The answer, says Lewis M. Nichols, L&N tie and timber agent, was an increased awareness of possible shortages of solid-sawn timbers in sizes and grades needed in standard railroad bridges and trestles. Other factors were the 25-year service record of treated laminated wood in bridges built during World War II, and the present capabilities of the glue-laminating industry.

"While there is no immediate reason to feel the supply of solid-sawn timbers will be drastically curtailed," said Nichols, "it is reasonable, in the long term, to examine alternatives to use of the standard timber stringer in bridge structures."

Several factors behind the renewed interest in laminated wood were cited by Nichols. "Second and third growth timber stands do not readily yield heavy timbers of the density and structural integrity that have been available in years past," he said. "Longer 'lead-times' are required to obtain sizes and grades needed for bridge construction. The use of timber for other products results in the cut of smaller trees and a decrease in the availability of sizes needed for heavy timbers.

"Increased loads resulting from heavier locomotives and car loadings indicate a need for improved structural strength in all bridge components. Solid timber bridge structures are limited to relatively short spans due to the problem of obtaining heavy material in extra-long lengths. Also, solid-sawn timbers are continuing to increase in price."

A trestle on the Texas & Pacific near Woodlawn, Tex., which was built in 1944, is one of the early structures in the United States utilizing creosote-treated laminated stringers in a railroad bridge. Other installations include a structure built in 1946 by the Atlantic Coast Line over the Palm River in East Tampa, Fla. These installations were followed by a number of others elsewhere in the country.

• 'Workhorse' trestle. The new trestle, according to Conrad W. Hale, L&N's engineer of bridge design, is the first such structure on the L&N to take full advantage of glue-laminated timber, beginning with the design stage.

"It is particularly significant that Bridge 168 is not a picturesque, imposing structure," he said. "It is a standard 'workhorse' trestle, quite similar to hundreds on many U.S. railroads. It is designed to 'work' for the railroad—will probably never even be seen by the general public. It represents a real and continuing application of glue-laminated timbers for the nation's railroads, and the use of such timbers in larger and longer structures whenever they are built or renewed is a definite possibility."

"It is evident," Hale added, "that glue-laminated timbers, when incorporated in the design stage for new or replacement bridges of this type, can be used at no premium 'in-place' cost over solid-sawn timbers. This offers a long-term solution to the problems cited earlier and capitalizes on glue-laminated timber's many advantages, which include: ready availability, structural integrity 'engineered' into the finished product, superior treatability (all wood is kiln-dried), increased spans, fast total installation, and increased design loading." ■

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5. Roller Bearings, Adapters and Cartridge Bearings.
6. Wheels and Axles—Components of Trucks.
7. Running Boards—Dome Platforms—Brake Steps—Cross Over Platforms—Repair to Sills.
8. General Repairs and Instructions.
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Amtrak will accept American Express, Master Charge and the Rail Travel Card.

We're pleased that Amtrak can now offer you the two surest ingredients for a pleasant trip. Trains and credit.

We're making the trains worth traveling again.

Amtrak

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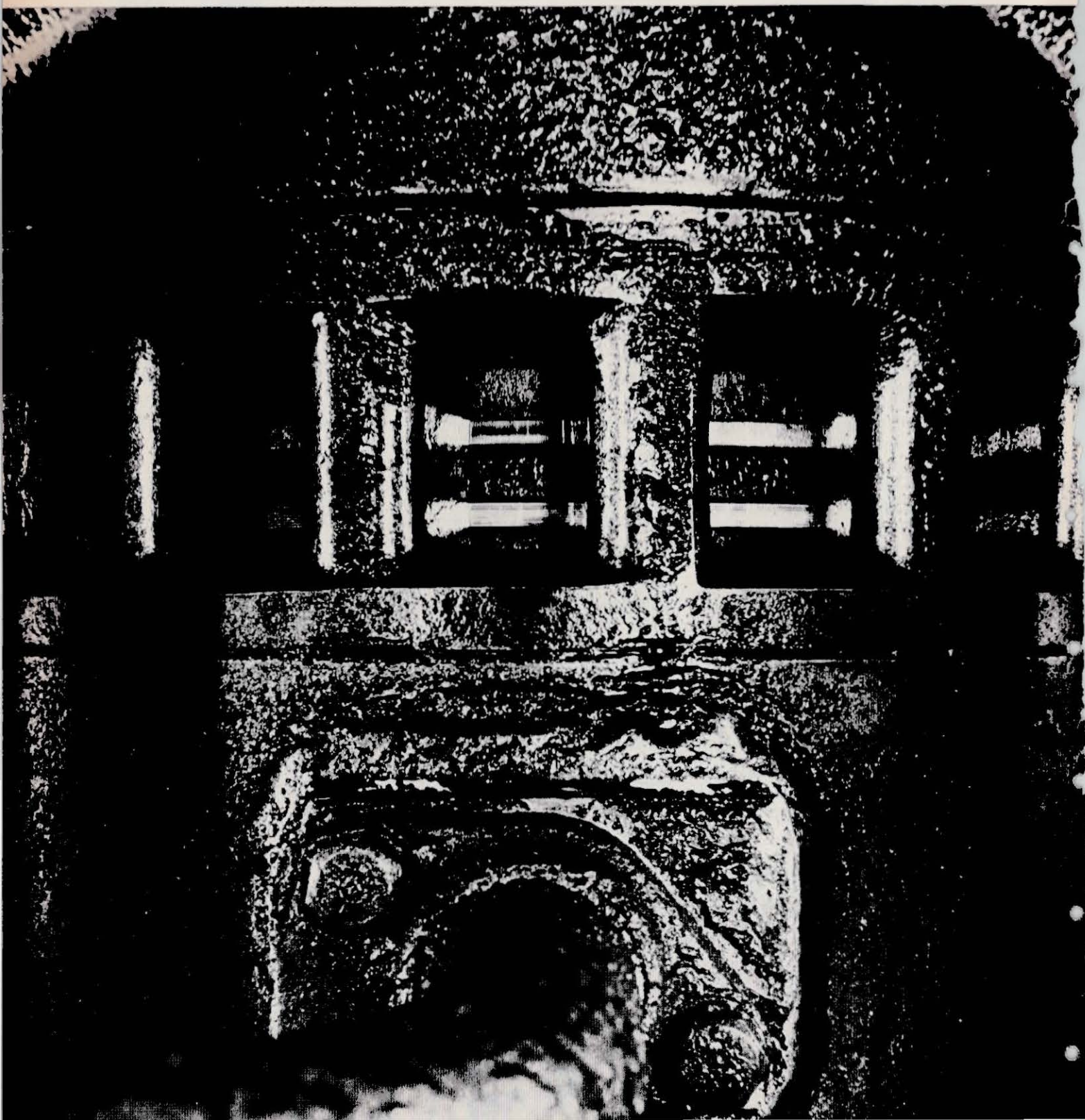

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It helps keep engines clean—TORNUS Oil contains dispersant additives that keep carbon and soot particles in suspension. The oil gets dirty instead of the engine.

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It provides anti-wear protection—This oil maintains an alkaline reserve that helps protect engine parts against corrosive wear.

It helps prevent engine damage from water leaks—The additives in TORNUS Oil help it "swallow" water. There's less danger to engines when minor water leaks occur.

It provides safe lubrication over extended service intervals—With TORNUS Oil, periods between cleaning of oil coolers are longer than with conventional oils. Oil filter life is two to three times better. Oil quality between changes can be maintained and drain life extended.

It helps reduce the frequency of engine shutdowns—TORNUS Oil stretches the time between costly shutdowns caused by plugged filters and hot oil alarms. It helps keep oil coolers clean and keeps trouble-causing particles in suspension.

Efficiency plus savings

Add up these advantages and you see that TORNUS Oil not only helps EMD's maintain efficient operation; it can offer users of conventional oils long-

term savings as well. Savings through less frequent replacement of moving parts such as pistons and bearings. Savings in engine clean-up time at overhaul.

Shell specialists made TORNUS Oil the hard-working, stable oil it is today. And they're not sitting on their hands. They're watching the horsepower curves. They're thinking about the next generation of Shell lubricants for high-output engines. Keep an eye on Shell.

Is there an idea here for you?

Your Shell Representative is the man to see for full details about TORNUS Oil. Call him soon at the Shell office nearest you. Shell Commercial Marketing, One Shell Plaza, Houston, Texas 77002.

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Baltimore, Md., (301) 821-5905
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Shell Tornus® Oil

SHELL

◀ AFTER 94,360 MILES, the No. 3 cylinder of this EMD-SD-40 on TORNUS Oil is exceptionally clean. No power-robbing deposits on air intake ports. Rings are in excellent shape. Original hone marks are still clearly visible on the liner. EMD-SD-45 diesels are typical examples of the more than 2100 EMD engines throughout the country using TORNUS Oil.

Circle 10 on coupon page 35

PROGENITOR, NOT PROTOTYPE, of new "Dash 2" line is this 4,200-hp SD45-X; EMD has four demonstrators; SP has three in service.

The story behind EMD's new line

A new "Dash 2" line of five domestic road freight locomotives ranging from 2,000 to 3,600 hp and featuring greater reliability with simplified maintenance has been announced by Electro-Motive.

Making the announcement early this month, B.B. Brownell, General Motors vice president and EMD general manager, also reported that an expansion of the LaGrange, Ill., plant nearing completion will boost locomotive production to the highest level since 1953.

"Both the new model line, which represents three years of intensive research and development by our engineering department, and the plant improvement program demonstrate EMD's unqualified confidence in the future growth of the American railroads," says Brownell. He identified the basis of this confidence as the 4% annual growth in railroad ton-miles and the fact that railroads are "an inseparable component" in the expanding U.S. economy.

• **New features.** The new line incorporates in existing models major changes in all principal components, including the modularization of electrical controls. In the Dash-2 series are the following:

—Two 2,000-hp units: The four-axle, four-motor GP38-2 and the six-axle, six-motor SD38-2;

—Two 3,000-hp units: The four-axle, four-motor GP40-2 and the six-axle, six-motor SD40-2;

—One 3,600-hp six-axle, six-motor unit, the SD45-2.

Brownell stresses that "the Dash-2 series has undergone the most intensive and exhaustive field testing of any locomotive line in the history of the Electro-Motive Division."

In the past ten years the rating of single-engine EMD units has more than doubled—from 1,750 to 3,600 hp. While there is every indication there will be a market for locomotives of still higher power (and seven 20-cylinder 4,200-hp units have been turned out), for the time being railroads' attention has turned from higher power to improved reliability and maintainability.

• **Railroad feedback.** Mechanical and operating officers for some time have been stressing to locomotive builders the importance of reliability and ease of maintenance. EMD liaison indicated that while current high-horsepower units satisfy requirements for train performance, the concentration of power in individual units does intensify the importance of reliability.

The labor problem

With the high cost of labor and the shortage of skilled mechanics, the requirements for less maintenance and for simplifying that which must be performed assume major importance.

Locomotive electrical control systems have long been a major source of problems. Increasingly they have involved electronic circuitry; all the components operate under severe environmental conditions. In the event of malfunction, EMD learned, railroads were finding it increasingly difficult to identify and correct the defects.

• **Modularization.** In the Dash-2 units, all critical electrical controls have been packaged in plug-in modules, normally 17 to the locomotive. Complementing the module system is an annunciator which records the malfunctions which have occurred during service, aiding the maintainer in locating the module that needs replacement.

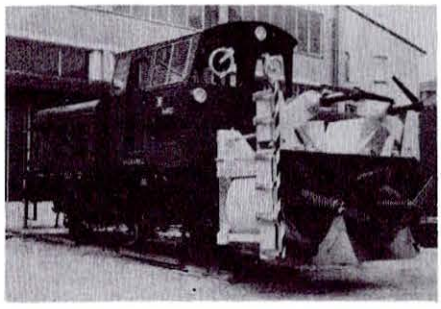
Other electrical system changes involved switchgear with higher ratings, improved wiring and solid-state elements more rigidly specified.

Changes were made also in the diesel engine, engine accessories and transmission. The 1972 units also have cabs with improved acoustic and thermal insulation. Controls were rearranged.

EMD has also introduced a new "high traction" six-wheel truck which reduces weight transfer between axles to permit increased hauling capacity with units of standard weight or accepted capacity with units of reduced weight. The result is a reduced sand consumption and lower rail wear and stress.

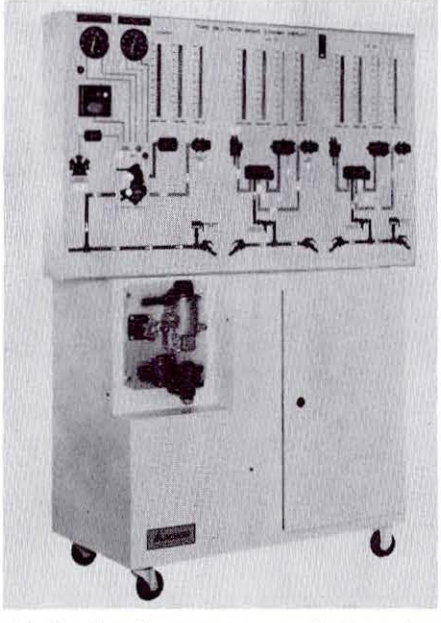
• **Test program.** All new components were service tested for extended periods. Initially EMD's Engineering Test Car trailed prototype units recording all aspects of performance. Much of the new equipment then went on two groups of prototype units: the DD40 6,600-hp units delivered to Union Pacific in 1969 and 1970 and the SD45X 4,200-hp units (see illustration). Three of the SD45X locomotives were delivered to Southern Pacific and another four units owned by EMD are being tested on railroads throughout the nation. Resident engineers followed the performance carefully. Only after being successfully proved on these high-horsepower prototypes was a decision made to incorporate the new features in 1972 production models. ■

New Products Report



Railroad snow plow can cut through 12-ft drifts

The Beilhack railroad snow plow is available in a self-propelled or push-type configuration. This high performance unit can cut through 12-foot drifts and has a throwing distance up to 120 feet. The two blower heads are independently adjustable, permitting the stream of cleared snow to be directed to the side or onto a flat car on adjacent tracks. The entire unit can be turned fully 180 degrees to permit operation in either direction. *Intma International, Inc.* (RA-1)



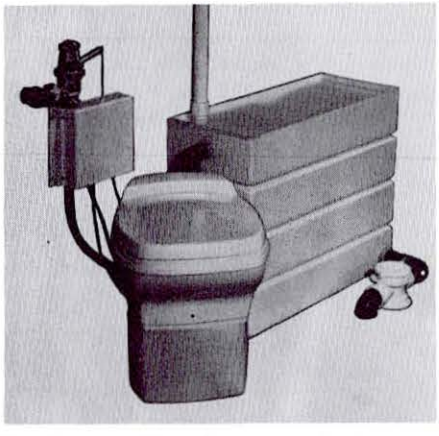
Air-brake demonstrator designed for high degree of realism

The Model DD101, Type 26-L Train Brake Dynamic display graphically depicts the real-time properties and functioning of 26-L air brake equipment on the locomotive and the first and last car of a typical train. This compact, electronically-operated, classroom-training device is designed to give the highest degree of realism possible in representing dynamic situations, as well as malfunctions.

Sub-assemblies include: a display panel with 5- x 3-ft rear-illuminated viewing area; instructor's control panel; control valves; electronic and power supplies; and optional sound-generating equipment.

Train lengths of 50, 100, 150, and 200 cars are simulated with varying degrees of train pipe leakage from either the head or rear of the train. The instructor may regulate training to fit the engineman's experience and known skill level. He also readily demonstrates standard air brake operating techniques.

The fidelity of simulation is said to assure maximum student interest and ease of learning. *Archon, Inc.* (RA-2)



Sanitary unit reduces waste to completely treated effluent

The H-12 sanitary unit for railroad use includes a "low-flush" toilet, treatment tank, air and water valve and chlorinator. A "filtering" process reduces waste material to completely-treated effluent that is relatively clear, stable and free from solids. The toilet operates on train air, and uses just one quart of water per flush. *Microphor, Inc.* (RA-3)

Eye- and face-protection devices are durable and easy to clean

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Inquiries can be processed only if title and company are shown. 2/14/72

FogGard MonoShield (right, in photograph), and the FogGard FaceShield. The comfortable, lightweight MonoShield snaps into place on any of the many styles and combinations of MonoGoggles. Easily removed for cleaning or replacement, it can be worn with spectacles and certain types of respirators without impaired efficiency. The FaceShield can be ordered as a replacement for almost any standard shield. It fits most makes of visors, is durable, easy to clean and inexpensively replaced. FaceShield can be comfortably worn with spectacles, goggles and most types of respirators. *American Allsafe Co.* (RA-4)

NEW LITERATURE

TWO-WAY RADIO. A new booklet from General Electric's Mobile Radio Department shows how businesses can make more profit per pickup or service call with better control of materials, supplies and service. The 16-page booklet gives cost analyses on typical systems and shows various types of mobile radios, hand-held units and base stations. (NL-1)

TOILET SYSTEM. A newly developed, pollution-free toilet system completely eliminates discharge of human wastes as called for in the U.S. Clean Water Act of April 1970. It is described in a 12-page illustrated brochure issued by the General American Research Division of the General American Transportation Corp. (NL-2)

FLUID POWER. A new brochure from the Fluid Power Division of Westinghouse Air Brake Co. describes fluid power products for industry. WABCO fluid power products described and illustrated in the 12-page brochure include pneumatic and hydraulic cylinders, directional valves, flow control and shuttle valves, "S" type relay valves, hydraulic valve manifolds, air line conditioners, marine control systems and propulsion control panels. (NL-3)

VEGETATION MANAGEMENT. Geigy Agricultural Chemicals offers a new kit designed especially to help make weed control easier. The kit is helpful in defining objectives, arriving at solutions and evaluating results and costs of yard and trackside weed control. The kit utilizes a large fold-out analysis spread sheet to be filled in by the railroad weed control specialist. The chart helps in considering such planning factors as timing, safety and budget in the control of weeds along tracks and in the yard. (NL-4)

PERISHABLE COMMODITIES. Printed proceedings of the 24th international annual conference on the handling of perishable agricultural commodities are available for $1 a copy. Proceedings of past conferences may also be ordered. (NL-5)

CAR COVER. Shunk Manufacturing Co. has issued a bulletin on the new "Auto-Latch" telescopic car cover. The bulletin explains and pictures the exclusive self-locking device which closes and locks the cover automatically as soon as a train moves. (NL-6)

SAFETY CHART. A new wall chart to remind dock personnel to use wheel chocks to avoid potential mishaps during loading operations is available from Copperloy Corp. (NL-7)

ENGINE AIR FILTER. A six-page bulletin issued by the Donaldson Co. describes how the "Slim VeePac" locomotive engine air filter provides high efficiency protection at lowest possible cost, regardless of environment. (NL-8)

CAR PULLERS. A six-page, illustrated catalog from Equipment Systems, Inc., gives specifications on Clyde car pullers, capstans and barge movers. (NL-9)

TRACKWORK. The innovative techniques employed by Dravo Corp. in laying 58 route-miles of the San Francisco Bay Area Rapid Transit System's trackwork are discussed in a new six-page, two-color brochure. (NL-10)

ONE-STOP RAIL CAR SERVICE. A new four-page brochure describes and illustrates the lining, coating and repair services offered by Lithcote Co. shops. (NL-11)

FIBER BEARINGS. A complete kit of information about bearings that contain Teflon fiber has been released by E.I. du Pont de Nemours & Co. Included in the kit are technical and performance data, case histories of bearings in a diversity of uses and other informative material (NL-12)

HOIST AND CRANE SAFETY. A pocket-size folder entitled "Pocket Safety Tips for Hoist and Crane Operators" has been prepared by Harnischfeger Corp. (NL-13)

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People in the News

Robert E. Dowdy
BRC

Samuel T. Brown
C&WI

Robert H. Snyder
C&WI

Horace M. Emerson
L&N-SCL

BELT OF CHICAGO.—Robert E. Dowdy elected president and general manager. Mr. Dowdy, formerly president and general manager, Chicago & Western Indiana, succeeds **Lewis A. Evans,** who will serve as a consultant until his retirement in July.

BESSEMER & LAKE ERIE.—William M. Hawkins, manager general accounting, appointed assistant to comptroller, Pittsburgh. **Charles W. Gordon,** supervisor revenue accounting promoted to manager Pittsburgh accounting.

CANADIAN NATIONAL.—R.A. Robinson, superintendent equipment, Northern Ontario Area, Capreol, Ont., appointed mechanical officer—car, Great Lakes Region, Toronto.

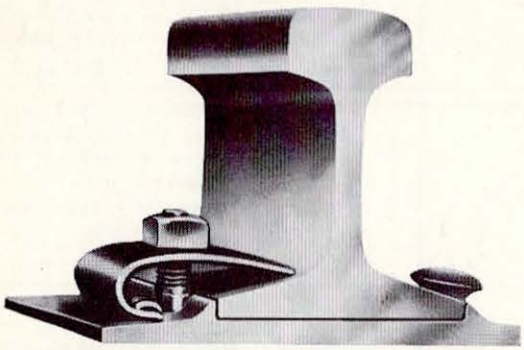
CANADIAN PACIFIC.—Graham Lawson, manager of stores, Montreal, appointed general purchasing agent there, succeeding **W.W. Lummis,** retired after 49 years with CP. **G.H. Cockburn,** assistant manager of stores, named manager of stores. **Donald Fahey,** assistant to general purchasing agent, appointed assistant general purchasing agent.

W.C. Tripp, division engineer, Smiths Falls Division, Smiths Falls, Ont., appointed assistant superintendent, Belleville Subdivision, Smiths Falls Division succeeding **H. Eaton,** transferred. **J.A. Inshaw** succeeds Mr. Tripp at Smiths Falls.

CHICAGO & WESTERN INDIANA.—Samuel T. Brown elected president and chief executive officer. Mr. Brown, president and chairman of the board, **Monon,** from 1967 until its merger with **Louisville & Nashville** in 1971, succeeds **Robert E. Dowdy,** who has resigned as president and general manager to assume that position with the **Belt of Chicago. Robert H. Snyder,** superintendent, elected vice president and general manager.

ILLINOIS CENTRAL.— Has restructured the Passenger Services Department into two main divisions, Chicago commuter service and Amtrak-related functions. **Frank E. Rizzuto** appointed director commuter operations and services and **B.J. Screws** named intercity passenger operations, services and Amtrak liaison officer. Other Amtrak-related appointments are **W.T. Reed,** director administration, intercity passenger operations and services; **D.P. Lillie,** director budget, cost control, food and beverage service, passenger operations and services; **R.F. Petersen,** director passenger services; **Z.S. Piech,** system manager food and beverage service; **T.F. O'Grady,** system manager passenger services; **F.C. Pacific,** manager equipment and consists; **T.R. Kee,** system manager baggage and mail service; **K.J. Ward,** office manager intercity passenger operations and services, all with headquarters at Chicago. **G.E. Pickle,** Jackson, Miss.; **C.J. Petty,** Memphis, and **G.V. West,** Carbondale, Ill., named to the newly created positions of regional managers passenger service. **J.A. Miller,** New Orleans, and **D.A. Wiggins,** Memphis, appointed district managers passenger service.

Sam T. Boleware, manager intermodal sales, named regional sales manager-coal, to



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Circle 11 on coupon page 35

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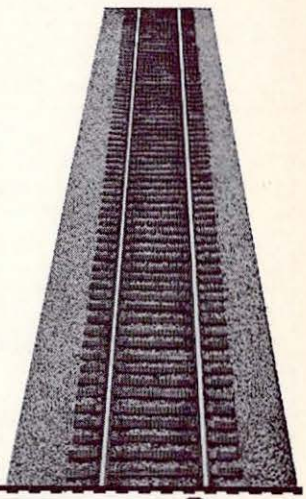

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Circle 12 on coupon page 35

succeed the late **Charles F. Bahr.**

JERSEY CENTRAL.—**Anthony C. Pisano** named superintendent, and **Louis D. Cocchiola,** assistant superintendent, car department. **Leonard A. Falkowski** appointed superintendent, and **Domonic A. Esposito,** assistant superintendent, locomotive maintenance. **Edwin G. Lawrence** appointed assistant superintendent, locomotive shops. All are headquartered at Elizabethport.

KANSAS CITY TERMINAL.—**Jesse B. Dryer** named engineer, maintenance of way.

LEHIGH VALLEY.—**Robert H. Jenkins,** superintendent—car, **Delaware & Hudson,** Albany, NY., appointed chief mechanical officer, LV, Sayre, Pa. succeeding **David C. Goehring,** now with **Amtrak.**

LONG ISLAND.—**Adam Hoover,** manager of purchases, Jamaica, N.Y., named director—purchases and materials, succeeding **Joseph P. Salomone,** retired.

LOUISVILLE & NASHVILLE.—**R.I. James,** general agent, Terre Haute, Ind., and **L.M. Dunford,** division freight agent-car utilization, Mobile, Ala., retired Dec. 31.

Clay Whidby, trainmaster, Louisville, Ky., named assistant superintendent, Monon division, Lafayette, Ind.

R.A. O'Brien, assistant district sales manager, Terre Haute, Ind., appointed district sales manager there.

LOUISVILLE & NASHVILLE-SEABOARD COAST LINE.—**Horace M. Emerson** elected vice president-freight traffic, with headquarters at Jacksonville, Fla., and Louisville, Ky. Mr. Emerson was formerly vice president-freight traffic, **SCL.**

James R. Getty, vice president—passenger traffic, SCL, elected to the same position with L&N. Mr. Getty will maintain headquarters at Richmond, Va., and Louisville.

MILWAUKEE.—**Charles F. Jensen,** assistant to the general manager of purchases and materials, named purchasing agent, Chicago, to succeed **Lyman B. Rees,** retired.

MISSOURI PACIFIC-TEXAS & PACIFIC.—**Harold Reavis,** general agent, Shreveport, La., appointed district sales manager, Memphis, Tenn., succeeding **Bruce C. Rayburn,** who retired Jan. 1. **Stanley O. Hall,** named assistant sales manager, Amarillo, Tex.

NORFOLK & WESTERN.—**William B. Grumley,** public relations manager, Lake Region, Cleveland, appointed manager—public affairs, Roanoke. **James F. DeHart,** advertising assistant, Roanoke, appointed assistant manager—public affairs there.

Hobart L. Scott, Jr., assistant general manager, Lake Region, Cleveland, appointed to the new position of assistant general manager—motive power and equipment, Roanoke. **William E. Ruby,** manager transportation, Cleveland, succeeds Mr. Scott. **Ralph E. Kieser,** superintendent, Muncie Division, Muncie, Ind., succeeds Mr. Ruby, **Robert C. Churchill III,** assistant superintendent, Scioto Division, Portsmouth, Ohio, named superintendent, Kansas City, Mo., Terminal, succeeding **Jon L. Manetta,** named superintendent at Muncie. **Charles W. Hooper,** assistant trainmaster, St. Louis, promoted to trainmaster there, succeeding **James T. Quarles,** promoted to assistant superintendent, Portsmouth.

Robert G. Williams, road foreman of engines, Pocahontas Division, Bluefield, W. Va., named trainmaster, Mullens, W. Va., succeeding **L.C. Stewart,** retired.

R.D. Harrison appointed trainmaster, Chicago Terminal division, Chicago, to succeed **N.S. Calvin,** resigned.

Sidney F. Robertson, manager budget and planning-operating department, named assistant to vice president operations, succeeding **Samuel E. Harvey,** who will retire Mar. 1. **James L. Spencer,** assistant to general manager transportation-system, succeeds Mr. Robertson.

PENN CENTRAL.—**Frederick K. Price,** sales manager, Philadelphia, advanced to director—sales—staff. **Thomas E. Reynolds,** regional sales manager, Detroit, named regional sales manager, Philadelphia.

Richard C. Cohea named to the newly created position of manager—petro-chemical sales, Houston, Tex. He was formerly manager—national accounts, merchandise traffic, New York.

Orville R. Harrold, master mechanic, Boston, appointed assistant regional mechanical superintendent, Metropolitan Region, New York, succeeding **Frederick R. Immelt,** promoted to manager—locomotive maintenance quality, Philadelphia. **Robert L. Kohl,** regional mechanical supervisor—locomotive, Metropolitan Region, appointed shop manager, diesel and electric shop, Harmon, N.Y.

Herbert A. Barker, captain of police.

(continued on page 41)

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NEW ISSUE

January 26, 1972

$28,000,000

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Market Outlook

CARLOADINGS

Loadings of revenue freight in the week ended Jan. 29 totaled 465,604 cars, according to the Association of American Railroads. This was an increase of 2,645 cars, or 0.6%, compared with the previous week, and a decrease of 38,694 cars, or 7.7%, compared with the corresponding week last year. Ton-miles generated by carloadings in the week ended Jan. 29 are estimated at 14.0 billion, a decrease of 4.1% below the corresponding week of 1971.

REVENUE FREIGHT CARLOADINGS

Commodity	Jan. 29 week	Jan. 22 week
Grain	22,101	22,966
Farm products	15,954	17,395
Metallic ores	18,530	16,305
Coal	86,246	89,176
Crushed stone, gravel & sand	19,515	19,475
Nonmetallic minerals	8,740	8,056
Grain mill products	18,732	19,084
Food and kindred products	24,485	24,271
Primary forest products	23,426	23,356
Lumber & wood products (except furniture)	15,789	14,738
Pulp, paper & allied products	23,258	22,439
Chemicals & allied products	27,509	26,913
Petroleum products	9,580	9,894
Stone, clay & glass products	16,637	16,909
Coke	6,972	6,648
Metals & products	21,414	20,523
Motor vehicles & equipment	23,841	23,320
Waste & scrap materials	13,251	13,194
Forwarder & shipper assn. traffic	5,783	5,744
All other carloads	63,342	62,016
LCL traffic	499	537
Total cars loaded	465,604	462,959

CUMULATIVE TOTAL, 4 weeks	1972	1971	1970
	1,824,797	1,960,033	1,954,377
Estimated revenue ton-miles (billions) 4 weeks	54.4	56.0	54.9

PIGGYBACK LOADINGS

U.S. piggyback loadings for the week ended Jan. 22 totaled 22,318 cars (1.0% below the corresponding week last year) and 37,190 trailers or containers (up 4.6% from 1971). Cumulative volume for the first 3 weeks of 1972 is 63,647 cars (off 2.0% from last year) and 106,334 trailers or containers (up 2.4% from 1971). In addition to freight, 2,445 cars carrying 3,775 trailers or containers of mail and express traffic were handled piggyback. Cumulative figures for the first 3 weeks of 1972 are 6,774 cars (down 31.3% from the 1971 total, and 10,510 trailers or containers (down 25.1% from 1971).

IN CANADA

7 days ending	Tons of Revenue Freight	Cumulative Totals
Jan. 14, 1972	3,691,411	6,650,920
Jan. 14, 1971	3,480,472	6,214,638

● *Freight-car orders and deliveries.*—The following report was released Feb. 1 by the AAR and the ARCI:

DELIVERED

	Dec. 1971	12 mos. '71	12 mos. '70
Built new by car builders	4,551	47,990	52,411
Built new in R.R. shops	256	7,317	13,774
Built new—total	4,807	55,307	66,185
Rebuilt	398	5,587	9,255
TOTAL DELIVERED	**5,205**	**60,894**	**75,440**

ORDERED

To be built new by car builders	3,633	46,913	42,530
To be built new in R.R. shops	300	5,569	7,763
To be built new—total	3,933	52,482	50,293
To be rebuilt	396	4,988	8,053
TOTAL ORDERED	**4,329**	**57,470**	**58,346**

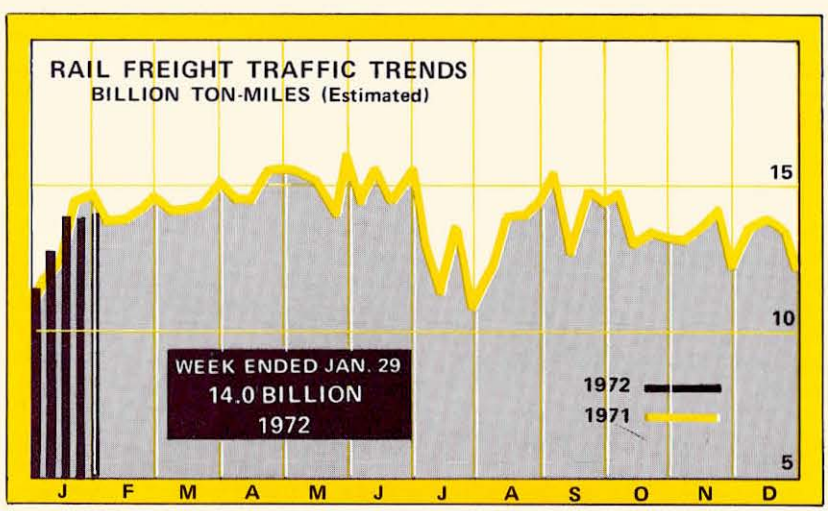
ON ORDER AND UNDELIVERED

	Jan. 1, 1972	Dec. 1, 1971	Jan. 1, 1971
To be built new by car builders	18,753	21,789	22,320
To be built new in R.R. shops	3,468	3,424	5,232
To be built new—total	22,221	25,213	27,552
To be rebuilt	1,786	1,788	2,384
TOTAL ON ORDER	**24,007**	**27,001**	**29,936**

● *Canadian National.*—Awarded a contract to build a 150-ft, floating steel ice deflector for the St. Clair River at Sarnia, Ont., to Rideau Valley Constructors, Ltd. The deflector will keep drifting ice from battering docks or vessels used by CN in operating an international rail barge service.

● *General Railway Signal.*—Received an order to supply Trakode coded track circuit equipment for installation between Baton Rouge and New Orleans. Fifteen signal locations along a 12-mile portion of Kansas City Southern track will be controlled automatically.

● *Union Pacific.*—Ordered 70 sets of Type "EL" coded cab signal equipment from WABCO, for installation on new locomotives. The equipment consists of a small signal unit mounted at the engineer's eye level, plus sensor equipment ahead of the front wheels, which provides a continuous indication of track conditions ahead.



Source: Association of American Railroads

Buyers wait for Congress to drop the other shoe

"We gave you what you asked for. And what have you done with it? Nothing!"

Those strong words were fired by Secretary of the Treasury John Connally at a group of top-flight business leaders last month. He was telling them that the Administration went to bat for business by pushing measures through Congress like restoration of the investment tax credit. Only, the businessmen are playing it cautiously, and capital spending is still only inching up, not spurting ahead.

• **Waiting for the next guy.** Indeed, business leaders—railroaders included—have not yet been doing much with the credit, although the Revenue Act of 1971 put it back on the books last December. The reason is obvious. When times are sluggish, everyone waits for the next guy to make the next move.

For railroads especially, restoration of the tax credit was a much-needed plus. But railroads have some additional motives for watching and waiting: there's a host of other transportation bills kicking around in Congressional hoppers. Some have strong bearing on equipment buying.

Some railroads, of course, have already announced hefty spending plans for 1972—the Santa Fe, the UP, and others. Whatever happens to those other bills, the investment tax credit is what the railroads have *right now.* They fought to get it back, it's now theirs, and a bird in the hand is worth two in the bush. Top railroad officers and particularly financial officers will be studying the Revenue Act closely, because it has a number of provisions that go beyond what the tax credit used to be.

• **Obvious spur to buying.** First and foremost the Act simply restores the 7% tax credit on purchase of such capital equipment as freight cars and locomotives. So that's as it was prior to 1969. Besides being an obvious spur to equipment buying as in the past, the credit can be passed through to equipment leasing companies, also as in the past.

Second, and this is new and important, the tax credit is extended to rail, ties, ballast and signals (although not grading).

This is significant, because when the investment tax credit first went into effect in 1962, it was intended to cover those four categories, but the language of the Act didn't spell it out. The Internal Revenue Service took this to be an exclusion, and has so ruled ever since. Railroad tax experts say it was the intent of Congress all along to include other capital equipment categories besides rolling stock. What the Act does now is spell out the eligibility of those categories for the tax break.

• **Opening wedge.** Furthermore, this could be the opening wedge toward a concession the railroads have been after for decades: the right to depreciate roadbeds and tunnel bores. As one railroad tax specialist put it:

"We want what any other industry gets—the right to get our investment back after a period of time. The way it is right now, the industry keeps adding and adding to the value of the roadbeds by making improvements, until it's valued in the billions of dollars. But the investment stays there forever, or until we finally go out of business."

Railroads still don't have what they want on that score. But the language of the present Act is at any rate a step forward, and it creates a precedent for future legal moves.

Third, the Act extends the expiration of the investment tax credit carryforward from seven to 10 years.

Fourth, it shortens guideline lives for freight cars by 20%—from 14 years to just over 11 years. In other words, a faster writeoff.

Fifth, certain types of freight car repairs that used to be classified as betterments and had to be capitalized, are now shifted to the deductible expense category.

• **Toward the goal.** So all in all, the Act as it now stands is distinctly a leg up the ladder for the railroad industry, as well as for railroad suppliers. Tax experts have avoided putting any figure on what the Act will unleash in the way of added capital spending. But there is no doubt that that will be exactly the effect. Railroad and supplier earnings were improving noticeably in 1971, compared with 1970, which was a disaster year for many. The Wall Street Journal noted recently that fourth quarter 1971 earnings were up 5.6% for 13 railroads, year-to-year, and 794.6% for six railroad suppliers.

Those figures don't take account of disasters like the Reading bankruptcy, or the continuing big deficits on the Penn Central (although the deficit is narrowing somewhat). Nor does it take account of the fact that in many cases, suppliers' improved performance owes most to non-railroad business. Still, things are looking up, and they will most likely look up a lot more this year.

During 1969-71, when the investment tax credit was out and the five-year amortization privilege was in, there was some argument about their relative merits. Treasury officials tried to soothe irate railroaders by saying the five-year writeoff provision would take the sting out of repeal of the tax credit.

• **"Genuine tax break."** For some railroads, it did have appeal. Tax specialists thought it was good for those tax-paying roads with accumulated tax credit carryforwards that were accounting on an ICC basis. (On that basis, there is no provision for deferred taxes as a result of accelerated amortization; on a GAAP, or generally accepted accounting principles basis, there is.) But in the words of one security analyst, "The investment tax credit was a genuine tax break; the five-year writeoff was in effect an interest free loan with a postponed tax bite."

It was a mixed blessing

So the five-year writeoff was a mixed blessing. The investment tax credit's appeal, on the other hand, is universal in the industry. That's because even non-tax-paying roads can lease freight cars and locomotives and pass the tax benefit along to the lessor.

Now what is everybody waiting for? They're waiting for Congress to drop the other shoe with regard to Fastcor, the surface transportation bill, the deregulation bill, and the loan guarantee bill, all of which could have their effect on the industry's financial posture.

• **Freight-car supply.** Fastcor in particular bears directly on the freight car supply, and it has a powerful backer in Sen. Warren Magnuson (D.-Wash.), chairman of the Senate Commerce Committee. But after passing through subcommittee, full committee hearings were postponed on it, and it still has to make its way through the full Senate, then the House committee and the full House—and then come the political conventions.

Given the fact that railroads, railroad suppliers, and some powerful shipper groups are cool to it even in its revised form, and given the tortuous windings the bill still has ahead of it, it is doubtful that capital spending plans need to be kept on ice, just to see what happens to Fastcor. ■

(continued from page 38)

Newark, N.J., appointed superintendent of police, Northeastern Region, New Haven, Conn.

ROCK ISLAND.—Eugene E. Margason, director of labor relations, appointed chief labor relations officer, to succeed **Guy E. Mallery,** vice president–labor relations, who retired Dec. 31 after 54 years of service.

David T. Breckinridge, manager revenue accounting, named director revenue and car accounting. **James A. Evey,** manager of disbursements, appointed director of disbursement accounting. **Jimmy R. Ryder,** manager–industrial engineering, becomes director industrial engineering and economic research.

SEABOARD COAST LINE.—Richard D. Sanborn, assistant to vice president-law, Jacksonville, Fla., named special assistant to president.

Joe K. Moore appointed tax attorney, Jacksonville.

SOO LINE.—Joe D. Darling named to the newly created position of assistant to executive vice president. **Harry C. Upton,** methods analyst, named to the new position of director of inventory systems development.

SOUTHERN.—Earl L. Dearhart, Jr. assistant vice president-sales, promoted to vice president-sales, Washington, D.C. **William V. Burke,** executive vice president-sales and public affairs, retired Feb. 1.

Robert A. Wharton, assistant vice president, operations planning, Atlanta, Ga., appointed general manager, intermodal transportation services there, succeeding **Denver Eyler,** named president, **Pennsylvania Truck Lines, Inc.,** PC subsidiary. **Jack R. Martin,** director, operations planning, succeeds Mr. Wharton.

SOUTHERN PACIFIC.—Howard F. Dully named district engineer, San Francisco; **Russell E. Frame,** San Francisco; **James F. Lynch, Jr.,** Houston, Tex., all new positions.

UNION PACIFIC.—Charles G. Culek, chief of the rate legislative bureau, named general freight agent, Chicago, succeeding **Adrian H. Schipper,** transferred to Seattle, Wash.

WESTERN MARYLAND.—Leon Utterback appointed assistant to manager, foreign commerce, New York, succeeding **James B. McNeill. Leonard E. Cox** appointed district sales manager, San Francisco, succeeding **J.G. Lawless,** retired.

WESTERN PACIFIC.—William F. McGrath, assistant vice president-pricing, named assistant vice president-sales, San Francisco. **Sheldon Glatt,** district sales manager, Oakland, Calif., appointed general manager sales-west, San Francisco, **Roger G. Meldahl** named general sales manager-east, Chicago. Mr. Meldahl was formerly regional sales manager, **Penn Central,** Philadelphia.

TRANSIT

Matthias E. Lukens, deputy executive director, **Port of New York Authority,** has been appointed acting executive director.

Austin J. Tobin, who has served as executive director since 1942, will retire effective March 31. A special committee of the Board of Commissioners is being formed to recommend the nomination of an executive director.

John R. Kiely, executive vice president and director, **Bechtel Corp.,** San Francisco, has retired.

The **Bay Area Rapid Transit District** moved, on Dec. 16, 1971, to 800 Madison Street, Oakland, Calif. 94607–Phone: 415-465-4100. It was formerly located at 814 Mission Street, San Francisco.

The St. Paul **Metropolitan Transit Commission** Governmental Division moved to 330 Metro Square Building, St. Paul 55101 on Dec. 20.

Ralph B. Cornell, special assistant to the director of transit operations, **Port Authority of Allegheny County,** Pittsburgh, retired Dec. 31.

David J. Bond has been appointed director of PAT's newly created Planning and Research Division. **Leslie B. Harding** has been named assistant project manager–construction contracts.

Alan F. Kiepper, city manager, Richmond, Va., has been named general manager, **Metropolitan Atlanta Rapid Transit Authority,** Atlanta, Ga., effective March 1. **H.L. Stuart** will concentrate on project development.

Harold C. Juram, treasurer, **Southeastern Pennsylvania Transportation Authority,** has

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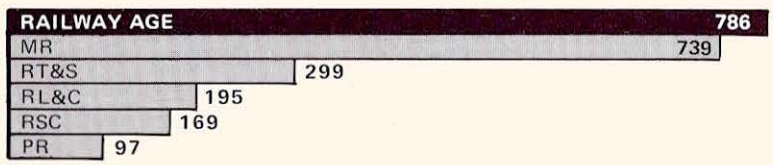

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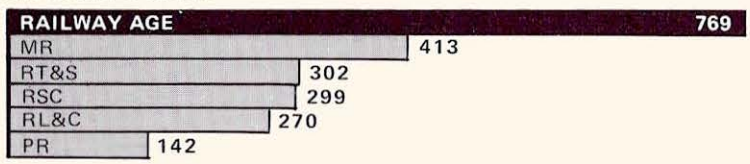

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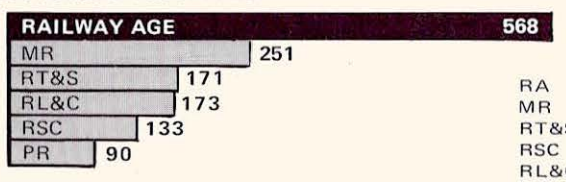

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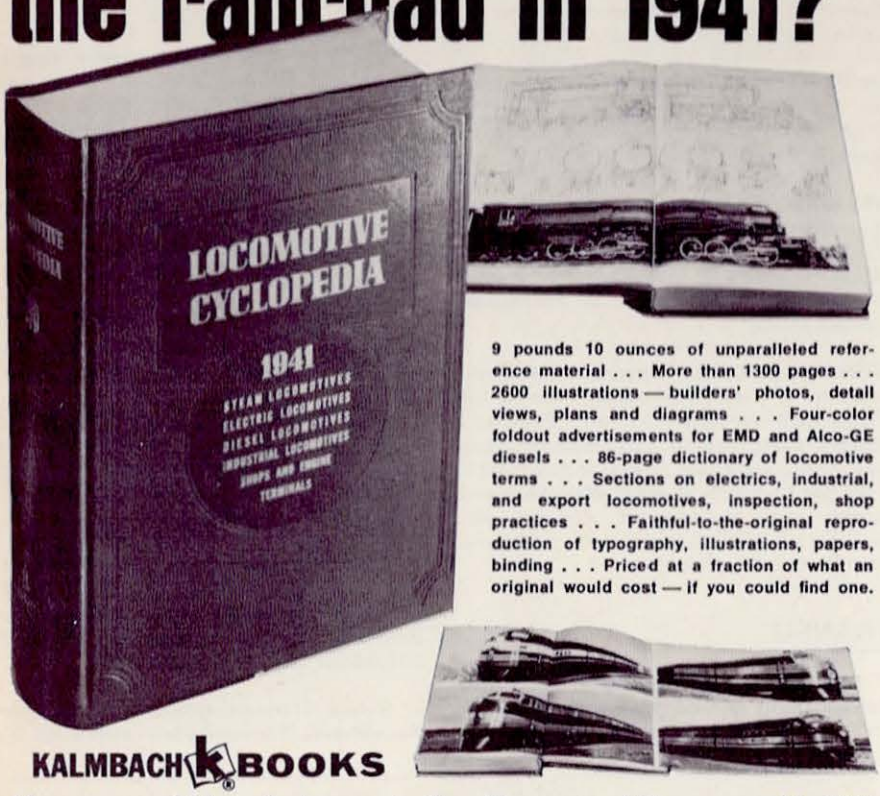

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been appointed to the new position of assistant general manager—planning and development.

James J. Finn has been named director of transportation, **San Francisco Public Utilities Commission**, which operates the San Francisco Municipal Railway. Mr. Finn will explore the feasibility of, and coordinate the creation of, a San Francisco Transportation Commission.

Edson L. Tennyson, Philadelphia's deputy commissioner for transit engineering, has been appointed deputy secretary for local and area transportation, **Pennsylvania Department of Transport**, Harrisburg, Pa.

SUPPLY TRADE

Raymond R. Wingard, assistant vice president, Forest Products Division, **Koppers Co., Inc.**, Chicago, has been named manager of the division's recently consolidated eastern and western railroad sales at Pittsburgh.

M.L. Liford, manager sales and service, **Railroad Accessories Co.**, division of **Safetran Systems Corp.**, Huntington, W. Va., has been promoted to signal engineer, Louisville, Ky. **James N. Murphy** has been appointed assistant signal engineer at Minneapolis, Minn. Mr. Murphy acquired railroad signal experience with the **Northern Pacific** and **Burlington Northern.**

Armond Kalesse has been named sales representative, **Comet Corp.**, Spokane, Wash.

Gordon C. Miller has been appointed vice president-operations, **REALCO.** Mr. Miller was formerly associated with **ATC Leasing Corp. David R. Wright** has been named assistant to the president. Mr. Wright was previously manager of administrative training programs, **Chicago & North Western.**

B. Nelson Bohm has been appointed vice president-engineering, **St. Louis Car Division, General Steel Industries, Inc.** He was formerly program manager for the State-Of-The-Art transit cars being built by St. Louis Car under subcontract to Boeing's Vertol Division.

Gerald W. Seelman, formerly a special assistant to the Secretary of Transportation, has joined the Transportation Division, **Kaiser Engineers**, Oakland, Calif.

Joseph J. Smith has been appointed sales engineer for **Paceco**, a division of **Fruehauf Corp.**, Alameda, Calif. Prior to his new assignment Mr. Smith was a contract administrator for the firm.

Baldwin-Hamilton Co., Division of **Ecolaire Inc.**, has moved its sales offices and other facilities to a new 32,000-sq. ft. building in the Wilmington Industrial Park, (P.O. Box 2105) Wilmington, Del. 19899.

David F. Hill and **John W. Schnaitman** have been named division sales managers, **Fruehauf Railcar Division, Fruehauf Corp.**

OBITUARY

Louis C. Tooke, 63, comptroller-treasurer, **Jacksonville Terminal**, Jacksonville, Fla., died Jan. 7 of a heart attack.

Advertisers Index

ACI Systems Corp. 12
American Steel Foundries 9
Amtrak 30-31

Chevron Chemical Company 6

Edgewater Corporation ..... IFC
Electro-Motive Div. of General Motors Corp. ... 21-26

First Boston Corp., The 38

Homelite 3

Kalmbach Books 42
Kerite Company, The ..... IBC

Portec, Inc. 10
Precision National Corp. ..... BC

Rails Company, The 37
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Viewpoint

Operating subsidies for transit? Why not?

"Subsidy" is not a politically attractive word. "Indemnification," perhaps because it is harder to spell, is preferred by some. Whatever you call it, it means that the public pays for a service that is deemed to be essential but cannot pay its way. Like local fire or police protection. Or garbage collection.

Or, on a grander scale, like the Federal farm subsidy program, which is now costing $5.5 billion a year.

For better or for worse, subsidy—whether applied to corporate farms or urban trash removal—has become a part of the American way of life. A staff study recently prepared for the Joint Economic Committee of the Congress estimates that the total cost of Federal subsidies alone to various segments of the economy is now in excess of $63 billion a year.

It is hard, in view of all this, to understand why both Republican and Democratic eyebrows are being raised so high over requests for a subsidy that will benefit more millions of Americans than the farm, waterway and all the other subsidies combined.

We are referring to current requests of public-transit interests (and public is the operative word because not a cent is to go into a private or corporate pocket) for "Federal assistance" payments to absorb the $400-million-a-year deficits which transit and commuter operators now incur as they move tens of millions of Americans from home to job, from kitchen to supermarket.

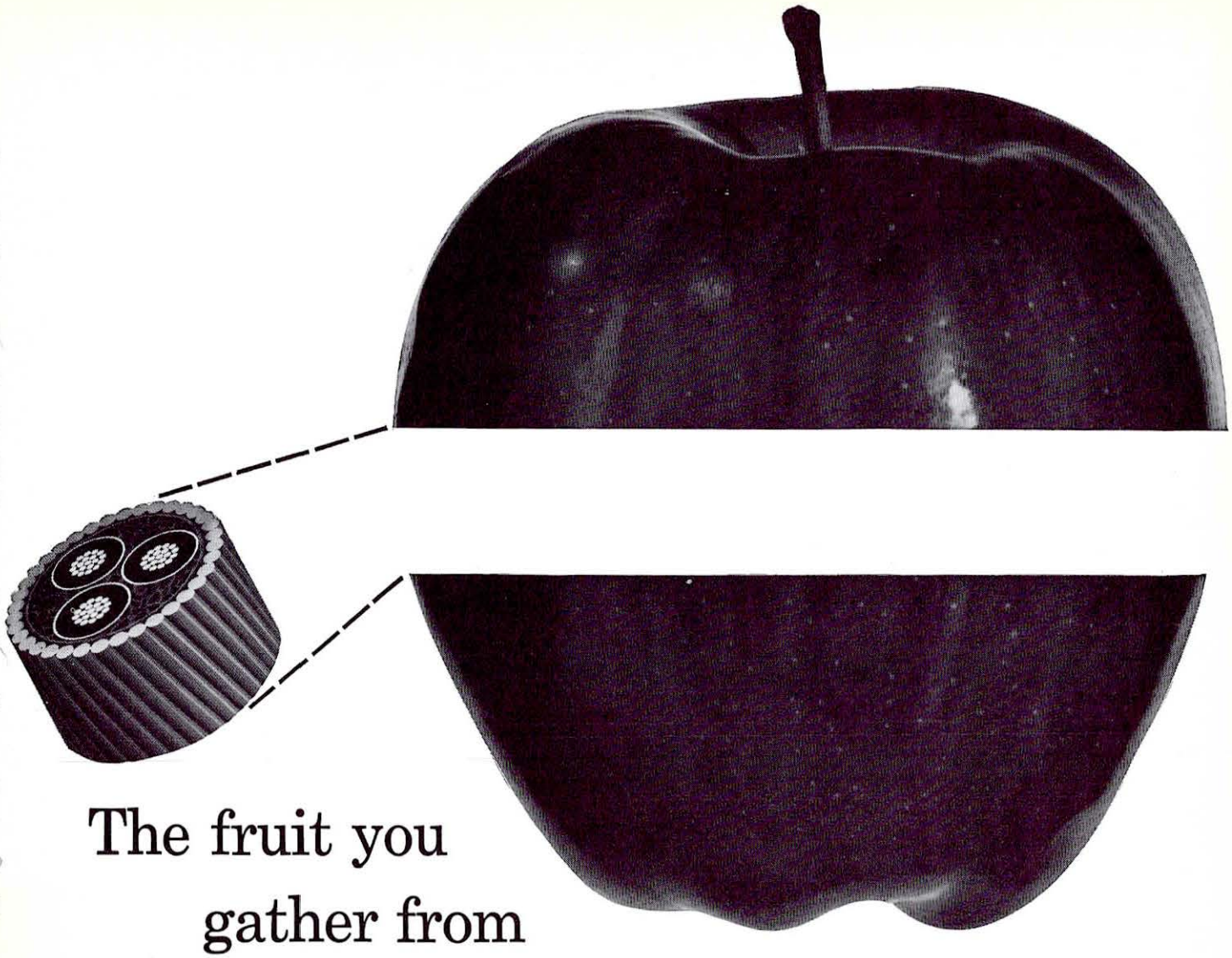
An eloquent plea for precisely this kind of assistance has been made to Congress by Dr. William J. Ronan, the chairman of New York's Metropolitan Transportation Authority.

A quick (and too easy) answer to this kind of plea has traditionally been there is no equitable way to subsidize local transit operations. Dr. Ronan answered this argument persuasively.

"One method," he said, "which would deliver money where it is needed and which would be relatively simple to administer would be a formula designed to equate to the productivity of the system in carrying passengers. Thus, the basis of assistance would be a per passenger contribution. The basic purpose of public transportation is transporting people, hence it would seem entirely appropriate that a formula for Federal assistance could recognize and relate to that fact. Such a formula avoids the 'bottomless pit' argument by equating the Federal payment to the service performed in carrying passengers; it avoids any measure of the extent of deficit incurred or relative efficiencies of operations."

GOOD TRANSPORTATION IS GOOD POLITICS

There are many good sociological and economic reasons for supporting public transit assistance. But perhaps the most cogent reason in this election year is that good transportation is good politics. And bad transportation isn't. The farm problem became a potent political issue years ago. Perhaps it's time to put transit on the hustings.



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